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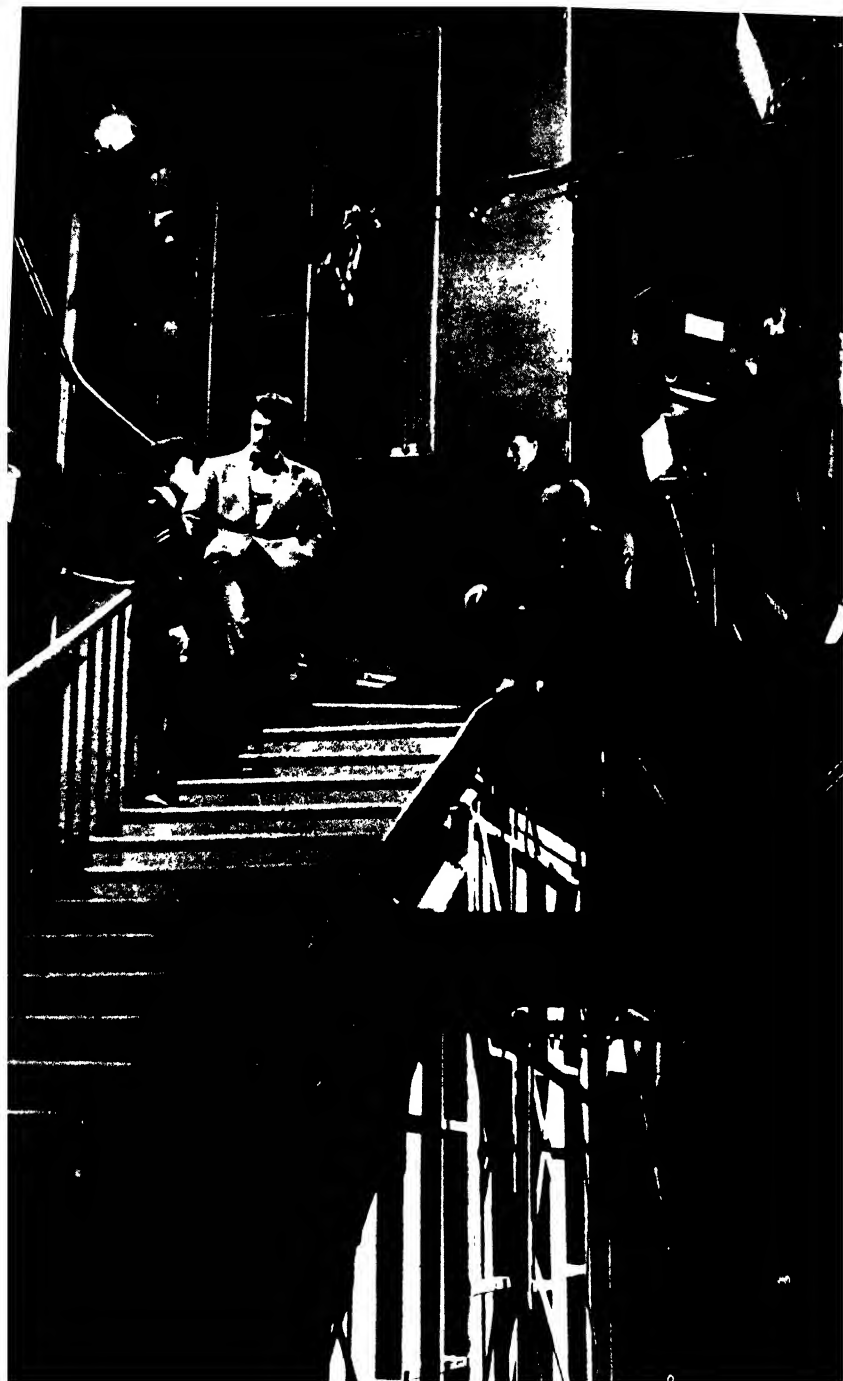
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THE MIRACLE OF THE MOVIES



Leslie Wood

THE MIRACLE
OF THE MOVIES

*With one hundred and
twenty illustrations*

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AUTHOR'S FOREWORD

IF you are looking for a book which deals with great films and great film stars of the past, this is not for you.

My typewriter cannot conjure up, for a generation who never saw them, the individual magic of Theda Bara, Max Linder or William S. Hart, just as writers about the stage have never been able to make my pulse quicken by their insistence upon the inimitable personalities of Dan Leno, Irving, and Marie Lloyd.

Indeed, why writers attempt it with the cinema is inexplicable, for those who are curious to see the stars and the work of the great directors of the past can easily gratify their desire by joining a film society.

The stage needs, it tells us, a National Theatre. We of the cinema already have our National Cinema in the National Film Library, where practically every worthwhile film of the past fifty years is preserved. Reams of description of stars and films can be but ineffectual in face of the still existing reality.

This book, then, is the story of the cinema's development, the story of how films came into being, of how the electric theatres sprang up, of pictures made in the sidestreets of Croydon and Brooklyn for a few pounds, and how Hollywood, Denham and Elstree emerged from those exciting early movie days, days when producers were as akin to pirates as makes no matter and actors were paid four shillings a day.

Ten years ago I wrote a book called *The Romance of the Movies*. It was serialised and plagiarized. Because it is out of print now, I am reproducing certain favourite passages from it in the present work.

My thanks are extended to the many people who have supplied information and allowed me to reproduce treasured photographs, among the chief being Ernest Lindgren, Curator of the National Film Library, Ernest Player of Warner Bros., Aubrey Bustin of RKO Radio Pictures, James Anderson, and R. Howard Cricks, F.B.K.S., F.R.P.S., each and all of them keen enthusiasts about the cinema's past.

LESLIE WOOD.

Cookham, Berks.

BY THE SAME AUTHOR

ROMANCE OF THE MOVIES

LIFE STORIES OF THE STARS

HARDSHIP OUR GARMENT (A NOVEL)

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SO YOU WANT TO SEE A STUDIO ?

THERE is no mystery, only a lot of misconceptions, about the way in which a film is produced.

To appreciate to the full all that has been achieved during this century of the cinema it would be as well to take a look at a studio and a film in production.

Nearly everyone wants to visit a film studio, and, in the course of a year, hundreds of people have their wish granted. Very many, however, come away feeling frustrated.

The fault was their own. They had omitted to go prepared with a rough idea of the film makers' craft, and so much of what they saw, though simple, appeared meaningless.

A film is in reality two films. One film bears pictures and the other a photographic record of the accompanying sounds. Though made simultaneously they are two separate and distinct things in the studio until they are "married", that is to say until the film editors and the director decide that they can combine the two in one for the sake of ease in handling in the theatres ; the projectionist has only one film to look after at a time and thus, without trouble on his part, picture and sound are always in synchronisation.

Of what does this "marrying" consist? Simply the combining of the sound track negative with the picture negative so that, on the positive prints which go to the cinemas, the sound track is printed down one edge of the same strip of celluloid as that containing the pictures.

At later stages in this book we shall see how a moving picture is made to move, and, later still, how it is made to talk. Just at the moment we are only concerned with the where and what and when, rather than the how, of its production.

The studio is, in reality, a factory. If it is a large one like Denham or the vast structures of Hollywood it will cover from fifty to one hundred acres of ground, but about three-quarters of this is simply

open ground used for filming scenes in the open air, scenes of streets and villages and mountains. All these are built on this ground, which, in studio parlance, is the lot (so called because the first American studios were hastily-erected platforms, open to the four winds, which producers put up on any vacant building plot or lot, as the Americans call it, which they could acquire on a short lease).

The lot is wired with electric mains for running lights, artificial light being used on outdoor scenes to boost up natural daylight and to provide highlights, highlights which are dear to the heart of every cameraman because they enable him to mould a face or figure and make it stand out from its background.

The scenes built on the lot have only one finished surface, that which is to face the camera. They are made of hard compo-board or three-ply wood and are life-size and painted and equipped to represent the real thing as near as makes no matter. A street scene will have in addition to pavements, lamp-posts, shops and houses, a variety of buses, cars and vans passing up and down, while extras, representing passers by, will apparently hurry about their business, pause to buy a newspaper, enter a shop or stop to light a cigarette.

Mountains are built with a false perspective to give an illusion of height. Gardens are planted with real flowers. A railway train may run on a track only a hundred feet long. As long as the camera is deceived, and therefore the cinema audience, that is all that matters. The back of the mountain is simply an erection of struts, the shops have no interiors and the train may have only one side.

Real shops, mountains and trains would be used if it were possible, but crowds collect round real shops when a movie camera appears, while the mountain is so cold the actors' breath condenses and mars the photography, and it is more satisfactory to control one's own railway train than to try to fit it into a company's busy schedule.

On the lot the visitor may hear the technicians talking of "cheating". This may refer to the fact that one compartment of the train will be built inside the studio, where it is easier to record sound, and that these scenes of the single compartment will be cut into the scenes taken outside of the full-length train. In other words they will be cheated into the picture to make the audience believe they are seeing one and the same thing.

The studio proper is the thing which intrigues the visitor most. It will, if it is a big studio, have six or eight stages, or only two if it is a small plant.

The stages, probably one hundred and fifty feet long, fifty feet wide and forty feet high, are simply vast, hollow sheds not unlike aircraft hangars. The doors are large to admit scenery. Around the sides, at a height of thirty feet, runs a narrow gangway from which the electricians work scores of lights. Narrow bridges are also suspended crosswise from one catwalk to another for the same purpose. Chains from the roof bear the weight of the big lights and of the heavier pieces of scenery.

The set, as the scene is called, is built solidly and is painted and furnished with some elaboration. It is three sided, the missing fourth wall enabling the camera to take in the scene. Occasionally a set is built with four walls of which two are mounted on castors so enabling the camera to view the action from a variety of "cheated" angles.

The camera is mounted on a trolley, the wheels of which run in ten foot sections of hollow rail for smooth and easy handling. The camera can be made to move forward, thus going from long shot to mid-shot without a break, a process known as tracking. It can also be moved from side to side and up and down. Occasionally it is mounted on a balanced cantilever girder, known as a crane, which enables it to swing over the heads of diners in a restaurant scene or to follow the actors up a staircase.

The camera is motor driven and takes twenty-four instantaneous pictures every second. It is fitted with a variety of lenses for close, medium and long shots. It is attended by four or five technicians.

Contrary to general belief, the cameraman does not work the camera. To-day he is called "Director of Photography" and supervises the lighting of the set, the position of the camera, and the angle at which a shot will be made. In some instances a great deal of this work is done on paper, and diagrams of the camera angles are prepared before production starts.

Actual manipulation of the camera is left to the camera operator, who, in turn, has two or three assistants, including a young man with a tape measure, which is run out from the camera lens to the star's chin in order to ascertain the correct focus. There are some even younger workers whose job it is to see that the camera is loaded and the exposed negative safely packed and labelled for despatch to the laboratories for processing.

Working in close harmony with the camera crew are the sound technicians. A microphone on a counter-weighted pole is suspended above the actors' heads, just out of camera range, to pick up the

dialogue, which is then photographically recorded.

There is "cheating" in the sound as well as the photographic aspects of film production. It is, for instance, extremely difficult to record dialogue in long shots taken out of doors. In the first place it is impossible to suspend the microphone over the players' heads without it appearing in the picture. Secondly, wind, planes, passing cars and other extraneous sounds spoil recording. The accepted practice, therefore, is to shoot such scenes silently, the characters mouthing the dialogue, and to match their voices to their lip movements during a recording session in the studio after the picture strip has been developed and printed.

In film parlance, every change of camera angle is a "scene". There will be between three and four hundred such changes of angle during the course of the film. Each of the scenes will be shot anything from three to a dozen times so that a perfect one may be selected for inclusion in the finished film.

Each of these takes of the scene must bear a number, otherwise the laboratory workers would be in hopeless confusion trying to distinguish between them, to say nothing of the difficulties of the editor and his cutters when they finally come to assemble all the hundreds of strips of picture and sound into one carefully vetted whole. So each take is numbered, and this is the job of the clapper boy whose presence puzzles studio visitors.

Just before the action of each scene starts, and after the camera has started, the clapper boy jumps before the lens and holds up a board bearing the number of the scene as it appears in the script. He also has a second number; this may be "Take One" or "Take Seven", according to how often the scene has been shot.

The top of his number board bears a hinged stick painted with black and white diagonal stripes. As he displays his numbers he also says them aloud—"Two hundred and one, take five"—and then brings the hinged striped stick down on the board with a crash.

The reason for all this is simple. His number board is photographed on the film and so identifies every scene and every take of the scene, while his voice is recorded on the sound film and therefore identifies that as well. His striped stick is also photographed, and, when it touches the top of the board—one can see it distinctly because of the stripes—the film editor knows that that is where the scene starts and ends, for the boy repeats the process at the close of each scene as well. The sound film carries the loud crash of the striped

stick meeting the board and so tells the cutter where the scene begins and where it ends, for, due to long practice, he can recognise the distinctive marking which the smacking noise makes on the photographic sound track.

All of these hundreds of strips of scenes are developed and printed. The director of the film decides which are satisfactory and which can be discarded ; he does this daily, going into the private projection theatre in the studio to see the scenes which he shot the day before. These day-old strips are called "the rushes", a name given to them because they are in fact printed hurriedly so that the director may view them with the least possible delay, otherwise if he decides to retake certain scenes he may discover that the scenery has been dismantled in the interim to make way for another set.

When the cutters have all the approved scenes and have weeded out all the rejected ones, they start to assemble a "rough cut" of the picture. The numbers on each scene make this fairly easy, the cutter starting with scene one, then joining on scene two and then scene three and so on, trimming out the number board of course.

The finished "rough cut" is a sorry affair, over long, dull in patches, and often repetitious. It lacks zest and sparkle ; it is just the pedestrian record of a lot of scenes, but it enables the producer, director and editor to see just what they have got and where it needs to be pruned, to be speeded, or even, in extreme cases, to have its story drastically altered.

In this lies the one tremendously outstanding difference between a play acted in a theatre and a play acted on the screen.

In the former the actors are the whole show ; lights and scenery may help, but lights and scenery alone will not compensate for poor acting or bad playwriting. In the film studio, the producer has a lot more than actors and scenery and lights to help him put the play across—he has the camera and he has the cutters.

The first film plays were recorded merely by placing a camera before the actors and letting them act in front of it. The camera was simply the beholder, the audience as it were. Then it was discovered that the camera could be moved about during the acting and become an actual participant in the action. If the villain drew a revolver from his pocket this was quite interesting in a long shot but very much more exciting and suspensive if shown in a close up, where one could see his finger tightening on the trigger and the hammer being clicked back preparatory to firing.

How much more interesting then to move up to the actor and catch the expression in his eyes, or to see that little quiver of the heroine's lips. It brought the back row of the pit right over the footlights and in among the actors where they stood.

As for cutting, here again was a form of pictorial writing unknown in the theatre.

On the stage a demented farm lad might burst in and shout : " The redskins are coming " and the audience hear the tramp of feet drawing nearer. On the screen the lad makes his announcement ; the editor then cuts in a shot of the redskins coming down the valley, and a close up of their feet slogging along in the dust, gives a brief glimpse of the braves and the war-lust in their eyes, and then cuts in pictures of the farm kitchen showing everyone tense with expectancy. Furthermore he can give a brief flash of the face of every one of the waiting throng—bearded old farmer, brave and indomitable, his wife looking to him for strength, their daughter with a babe in her arms looking down at her child with foreboding in her eyes.

Such are the obvious possibilities of cutting. They have been extended tremendously. The drop of rain sliding down the dusty apple, the little mole peeking out of his hole to watch the follies of man, the eerie branch of a tree tapping against a window in a mournful house, all can be made part and parcel of the story ; they emphasise a point or build up atmosphere or even tell the very bones of the story itself. Just as a novelist makes words work for him, so does the film cutter use pictorial images.

More than that, he uses sound as well, not just straightforward dialogue, but the whispering voice of a troubled conscience, or a bit of narrative by an unseen speaker, or the shrill crash and thunder of a mad orchestra when the heroine, driven beyond endurance, at last turns and fights back.

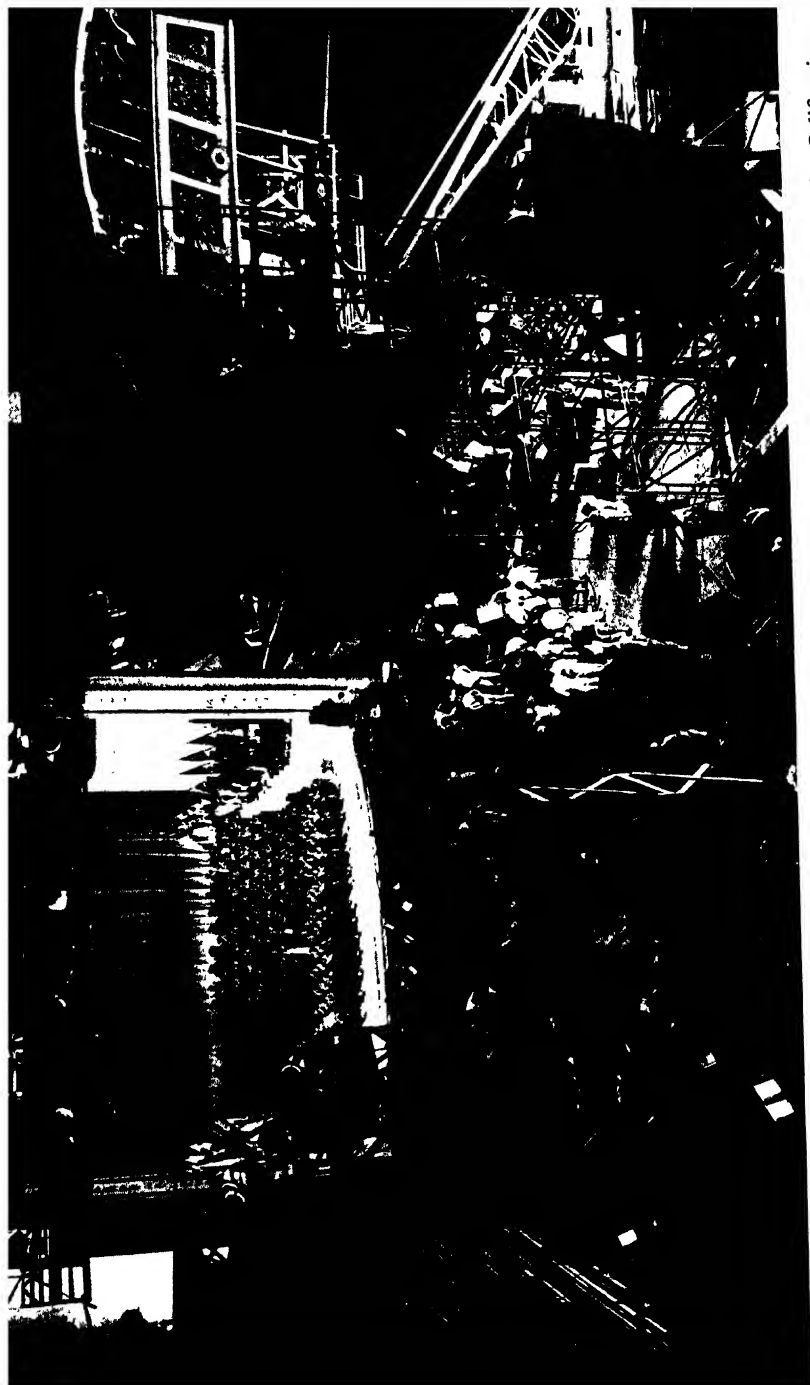
Admittedly sound editing is still far behind picture editing ; the same cleverness has not been brought to bear in its handling. The actual recording is good, but there is still a lack of imagination in using sound. It may be an unfair charge to lay against film editors, however, for they can only go as far as their audiences will let them. The sound editor may think it a fine idea to depict the leading lady's nerve-wracked state of mind by merging the chatter of the people around her into the torturing sound of pneumatic drills in action, but, if the audience thinks something has gone wrong, either with the



(Above) Denham Studios as seen from the outside. The stages are away to the left

(Below) The layout of a typical Hollywood studio—the 20th Century-Fox “lot”





iner, musical stage show, and a galleon check by jowl on a stage crowded with technical equipment in Warner Bros' studio, California

man who made the picture or the actual sound apparatus, and starts to laugh, then the film editor is finished as a film editor.

The advent of cutting and editing in pictures, then, was a far greater advance in film technique than the advent of sound. One can make pictures without sound ; for more than thirty years they actually were so made and tens of millions enjoyed them. They could still be made without sound to-day, and probably will be again, but to make them minus editing would be unthinkable.

It is a dear old joke with cinema fans that the studios shoot the last reel first and the first reel last, or that the heroine of a film plays an old lady of eighty during the first day of production and the same character at the age of eighteen the next, or that the villain is hanged first and then enacts his role at his trial later.

There is nothing comical about the reason. It is simply one of convenience or economy that scenes are not shot in sequential order.

The old lady, let us say, ends the film living in grandeur in a great rambling mansion. This set will occupy the whole floor of a stage. The cottage in which she starts her film career as a girl of eighteen, however, is quite a small affair, so the mansion goes up first. The cottage is built inside it when it is finished with. Between cottage shots, the stage hands pull the mansion down. Similarly with the villain ; his trial needs a replica of a court, and scores of extras, but, on another stage, at the same time, a society wedding is being staged for another film and that has dozens of extras too. So, as dressing room accommodation cannot be stretched indefinitely, the society wedding goes ahead and the second director stages his hanging scene, which is only a simple, silhouette affair. When the wedding guests have dispersed after a day or two, he can call his extras and stage his courtroom scene.

There are dozens of similar reasons. Another seemingly puzzling facet of film technique is to shoot all scenes which occur in one locale one after another, irrespective of where they come in the completed story.

As an example, a man in a telephone box in getting a wrong number, becomes acquainted with a charming girl. She refuses to see him ; she does not believe in meeting strangers. They do meet, however, at the home of a friend who is common to both. The plot develops but we need not follow it except to say that the man does not tell the girl that he is the man on the telephone, for she has not recognised his voice. In the end, however, he rings her up and asks

her to marry him. At first she thinks he is the stranger who tried to make her acquaintance, then she realises it is the man she has met and whom she likes—and it dawns on her that he is one and the same person, and accepts his proposal to marry her.

The man's telephone box is, perhaps, in Waterloo Station. The girl's telephone is in a charming West End flat. If the director were to shoot his story as it occurs on the screen, he would put up the Waterloo station phone box and shoot scenes of the man getting the wrong number, then he would remove Waterloo to shoot scenes of the girl in the flat, then he would rebuild Waterloo to show the man hanging up discouraged. After building the intervening scenes of the home of the friend, he would have to re-erect Waterloo Station and its phone box and, finally the girl's flat would have to be built all over again for the closing scenes. Obviously, the director shoots all the scenes which take place in one locale before going on to some other part of the story.

This economy of time and labour extends much farther than mere scene building. It also embraces actors and actresses. Let us suppose that there is a scene in which a father tells his worthless son to pack up bag and baggage.

In the long shots both father and son must obviously be present, but, when it comes to the close shots of the father, the son need not be present and vice versa. This is very puzzling to the beholder who may see an actress roundly denouncing a second party who is not there, or hear an actor asking questions, and apparently receiving satisfactory but entirely inaudible replies—the replies being supplied by the second party, when the first may not be present, the dialogue being inter-cut so that questions and answers fit like a jigsaw puzzle when all the pieces of the film are assembled.

From the foregoing it may be readily judged that a film actor's job is nothing like as difficult as that of his stage counterpart inasmuch as he does not have to memorise a lengthy part from cover to cover and give an immaculate performance. He learns his lines a few at a time, the average running time of a film scene being seven seconds, and, if he is not in top form at the first taking of the scene it is of no great importance for the scene can be taken again and again until he gives a creditable performance.

On the other hand, he must be more versatile than his stage counterpart, for he must be able to project himself into any scene, arbitrarily allotted by the shooting schedule, and he must give such

a counterfeit of reality that the audience must never be aware that in certain conversational duologues he was alone on the studio stage. It demands quite a degree of talent to implore, in a close up, the girl of one's dreams to save herself and to leave you to your fate when there is no girl present, the girl being either in the studio restaurant having her tea, or perhaps not even in the studio at all.

Are films rehearsed ?

Do the players have a copy of the script ?

These are two questions frequently asked by those unfamiliar with studio practice.

The answers are : films are not rehearsed from beginning to end as a stage play is, but each seven second scene is rehearsed several times immediately before it is photographed.

The players do have a copy of the script so that they can study their roles before rehearsing.

In silent film days certain directors did not allow their players to see the script. The director built up the entire edifice, creating each one of the characters himself. All the player had to do was to obey instructions ; as there was no microphone to bother about, the director kept up a running fire of instructions even while the camera was turning, but that is not possible, of course, to-day.

Many old-time directors believed that if the players read their parts in advance they would automatically start to envisage them and to create them as characters, and, because he was himself creating their roles, he would only have to spend valuable time knocking these preconceived ideas out of their heads when he started directing.

To-day it is not uncommon for small part players not to see the script, and to obey directorial orders implicitly without knowing the full significance of the things they are doing or saying in relation to the story as a whole.

Such things are largely a matter of fashion—and of technical development. At one time, for instance, it was unheard of for anyone to enter a sound stage while the camera and sound recording apparatus was working ; red lights outside the doors lit up huge boards bearing warnings about entering while shooting was in progress (they could not lock the doors because of the fire regulations), but no one bothers now. The mikes have become so directional that they pick up little extraneous noise.

Similarly, the days of the clapper boy and the striped sticks are passing ; coming into vogue is a device which punches directly on to

the film in the camera all the information required.

The acting, the actual shooting and direction, these are the things of which the studio visitor is made fully aware, but, on his way through long corridors, he will pass countless doors. Behind each an activity is going on, without which not a foot of film could be shot, for in these cubicles are the scores of workers who plan, co-ordinate, and handle the production from beginning to end.

A dozen people are engaged in seeking and preparing stories. The scenario editor has a staff which reads every book review in the hope of hearing of a volume which may provide a story idea ; literary agents send their authors' latest novels and biographies. Newspaper headlines are scanned for items which may suggest a theme. The scenario staff go to the new plays in search of screen material, and eminent writers are put under contract to supply stories. In fact, the only source which is not given serious consideration is the unknown, unpublished amateur. Some big American studios decline even to read unsolicited MSS, and not only decline to read them but pointedly stamp on the envelopes : " Refused at studio gate ". They say that experience has taught them that many people do not realise that a published story in a magazine is the copyright of either the author or the publisher, never, in any circumstances, that of the reader, and that such morons copy out stories, append their own names, and, offer them as their own work.

In the early days, film companies were often the victims of such practices and were left to compensate the real author, the plagiarist having decamped at the first sign of trouble or having in the meantime spent the fee paid him. Film companies object to paying twice, and, in the case of plagiarism, however innocent, they pay dearly.

Fees paid for stories vary enormously. I have heard of writers who have accepted as little as £100 for an original story. They are apparently unaware that a successful picture grosses a quarter of a million pounds sterling at the box office in Britain alone.

An average price is difficult to give ; there is no average, everything depending on how good the story is and how badly the film company needs it. Prices as high as £50,000 have been paid for film rights in successful stage plays and, generally speaking, these are valued more highly by the studios than novels because they have already played to an audience and their potentialities are thereby easier to assess as box office successes. Original stories, likewise, usually command lower prices than novels, the argument being that,

if a publisher has risked his money on putting a MS out as a book, he, being a business man in touch with public taste, has faith in it as being what the public wants. In other words, film chiefs like to feel reassured by the other man's judgment before they buy.

The trend, however, is much more towards original screen stories than was formerly the case because writers of repute turn more and more towards the screen and its higher remuneration.

Having purchased a story, the scenario editor turns it over to two or three writers simultaneously and they weed out irrelevant matter, such as passages which will not film. They readjust the incidents, and, occasionally, the main theme of the story in order to conform to the demands of the film censors. Very likely they will also reduce the number of characters to filmable dimensions.

Each writer, or pair of writers, works out a treatment, that is, their suggestions for presenting the story. One team, for example, may think it more effective to start at a point quite late in the story and tell most of it in retrospect, or flash back as it is called. Another team may say to themselves that though the central character of the book or play is the hero, it may be more effective as screen fare if they make the central pivot the heroine.

The scenario editor and producer choose the treatment which seems to them to be best, or which most nearly conforms to the amount of money the company is prepared to spend on the story, or that which is most suitable for a star under contract. They may take first-rate ideas from one treatment and incorporate them with the first-rate ideas contained in the others and thus create a composite of all of them.

When this has been accomplished the synopsis is amplified through various stages until finally a shooting script, about four hundred pages in length, emerges. This contains stage or rather film directions down the lefthand side and dialogue down the right. About two hundred copies of it are cyclostyled for use by the many departments in the studio immediately concerned with the production.

Long before a camera turns on the first scene, these departments are busily at work preparing the picture.

There will probably be about fifty scenes. The art director makes his sketches, and, when these have been converted into paper models and approved, he turns them over to a dozen draughtsmen who carry out the blue prints showing the technical details of construction. These, in turn, go to the construction department which arranges

for the materials and labour needed to turn them into the real thing, or, at least, a clever counterfeit.

When the carpenters and plasterers have made the sets, these go to the actual riggers who build them on the floor or out on the lot.

Meanwhile, the research adviser has been at work collecting detailed information about every conceivable aspect of the atmosphere of the story—furnishings, costumes, customs and so on.

In turn, the outside buyer has also been busy hiring the furniture and properties which the story demands. He, in turn, works in co-operation with the set dresser, the studio property department, the property-making department, the drapes (or soft furnishings), and electrical departments.

Controlling all this are the Contracts and Accounts departments. Their job is to keep a close check on how the sum budgeted for the production is being spent.

Soon the production begins to take shape. The carpenters and plasterers start to supply the sets, sets which are usually composed of about twenty-five per cent timber and seventy-five per cent plaster. Paper also plays a big part in their construction; those shimmering floors of polished marble are, in reality, varnished paper of the type once common in suburban passages and bathrooms. Hessian, because of its ease of handling, is invaluable for rocks and other rugged surfaces.

Some of the tasks which construction departments undertake appear almost superhuman, such as constructing a garden in the full flower of spring when, in fact, it is the depths of winter outside the stage, a job which may necessitate making and wiring on every leaf and flower of every one of hundreds of plants.

The casting director also gets busy as soon as the story outline is approved by producer and director. Experience teaches him the right man and woman for every role, but his real difficulty lies in getting hold of them; they may be working elsewhere, or they may want more money than the budget will allow him to offer, while the temperamental ones may read a role and then, after endless discussion, finally turn it down.

Extras present little difficulty; the supply always exceeds the demand, though even here the casting director encounters snags if the script calls for five hundred coloured men or other races not in plentiful film supply.

The make-up department works at high pressure well in advance.

They design wigs and get out make-up charts ; they have dozens of cherished practices for altering a player's appearance, using collodion to wrinkle skin if old age is required, or giving a character a villainous blind eye by stretching goldbeater's skin across the eyelids.

It is usual to insure films against the risk of the studio going on strike or catching fire or other delays in production. The stars and big part players are also insured ; a broken leg may result in a production being held up for weeks. Some pessimistic producers even insure against the finished picture turning out to be a flop but, naturally, the premium is so high it would scarcely seem worth while.

The sound engineers plan their campaign in conjunction with the other departments ; they do not want the sets built of material which will muffle the sound nor, on the other hand, do they want them constructed so that there are echoing surfaces. They must arrange, too, to fake certain sounds ; a house on fire, for example, does not provide much in the way of actual sound, but a handful of cellophane crumpled and uncrumpled beside the microphone gives a fine crackling effect, and an iron ball rolled down a wooden chute records much better than a real peal of thunder, while a sewing machine whirring softly is indistinguishable from a car engine ticking over and has the advantage of not filling the studio with exhaust fumes.

On a small stage, tests are made well in advance of the date set for the start of the picture on the floor. Not only are players tested but also their hair styles and dresses.

In the special effects department models are created, models which, when placed in position before the camera, will become an integral part of the scene being photographed.

The studio manager also has his own problems. Dressing room accommodation must be allocated, the studio restaurant and cafeteria prepared for the influx of scores of crowd players on certain days.

The location finder must turn up his files of thousands of photographs and select the locales for those scenes which will actually be made on the spot. In turn, the transport department must not only be prepared to collect and deliver props needed in the picture but must be prepared to deliver and return the artistes and technical crew from location.

The most harassed workers are the assistant directors. Their job is to co-ordinate everything and to see that none of the departments let the producer and director down when shooting starts.

An assistant director is ambassador between the front office, as the executive departments are called, and the director ; he is the director's memory as well as the producer's guardian angel. All the time he is thinking weeks ahead, making sure that the casting department has a knife thrower on tap when the director demands such a player, or that the front office has fixed up for the services of an incendiary expert when the time comes to stage a fire scene. More than that, he must tabulate the day's shooting so that the producer can keep his chart, which hangs on the wall of his office, up-to-date. The assistant reports how much film has been shot and on what scenes, how much has been spoiled, what artistes were late on the set—in fact everything which the producer needs to know in order to make certain that the production is not running over schedule as to time and expenditure.

But his biggest job is to work out the calls which are sent out to artistes. In the ideal state of things it would be nice to have all the actors standing by the whole time ready to step before the camera at any given time when called upon. Actors, however, have other commitments, perhaps appearing in another film simultaneously, or playing on the stage. The assistant director must therefore work out a schedule which calls the players only on the days on which they will definitely be required, also he must so arrange matters that one artiste will be needed only in the morning and will be enabled to get away in time for the matinee she has to play in the afternoon.

His ally on the set is the continuity girl who types a log between each scene, recording exactly the words said by the players—they sometimes deviate from the script—for the benefit of the editor and cutters, who might otherwise be in difficulties in cross-cutting the film, as well as the props used and the clothes worn by the actors. It is her job to make certain that a hatless player entering a hotel's revolving doors does not sprout a hat when he leans on the reception desk. Scenes in which the players smoke cigarettes are her particular headache, for she must see that the cigarette appearing in the close ups is the same length as that shown in the midshots.

The laboratories, printing and developing the picture and sound films, likewise have their problems, but most fascinating to the stranger in a studio are the printing machines. To look at, they are not unlike the four-column chocolate and cigarette machines on railway stations. They take care of the duplication of the fifty or more copies which will be required of a popular release. Utilising one negative, and with the unexposed positives coming into contact with

it at various points in the machine, half-a-dozen copies are exposed to it and to the printing light and are made simultaneously.

The optical printer holds especial fascination. By masking devices and the introduction of prepared additional negatives, it is possible to take a shot made on the lot and to print on it, in exact register, a range of mountains in the background, or to take shots of a magic carpet photographed on the studio floor and to print it sailing over the roofs of a city.

Tricks of the trade are endless. One which is so everyday that it is no longer regarded as a secret is back projection.

This is used to show a street speeding away behind a car as seen through the back window, or the countryside flashing past the windows of a train.

Both car and train are fixtures in the studio. Behind their windows a semi-transparent cinema screen is erected and behind this in turn is a projector carrying a reel of film actually taken from a car or train. When the actors start to play their roles the projector behind the screen starts up and shows the film of the scurrying countryside, but, as the camera recording the scene does not embrace the whole of this back projection screen but only that portion visible through the window, a perfect illusion of passing scenery is achieved.

In the largest American studios there may be over one hundred buildings as well as twenty or more vast sound stages ; in addition there are five hundred offices and dressing rooms, a fire station and police department, and a power station capable of lighting a fair sized town.

The wardrobe department will take care of costumes sufficient to clothe fifteen thousand people—their main concern being to keep them moth-free, to dry clean them, and to alter them to the individual measurements of the player who is to wear them.

The recording of the songs in a musical, or the supplying of background music to dramas and comedies, also demands the co-operation of scores of workers in addition to the actual instrumentalists and musical directors engaged. The largest studio in the world, at Culver City, claims to have two million orchestral parts on file.

Besides the libraries of music and the library in the reference department, there is also a library of films on which directors may draw, either to obtain a shot needed in editing the film, for instance a long shot of a paddle boat of the 70's ploughing through the waves to give atmosphere to the scenes on deck shot in the studio, or to help

them reconstruct an episode in the studio—such as the appearance, mannerisms and movements of Lloyd George as depicted on an early news reel. One big studio, that of Metro-Goldwyn-Mayer, claims to have five thousand miles of such library film, embracing two hundred thousand subjects, and claims that its collection grows at the rate of one hundred and eighty miles a year.

Facts and figures can be meaningless, however, defeating their own ends by the sheer weight of their impact.

Perhaps the reader who wonders why the short film which used to cost £7 in the late 90's now costs £700,000, an increase seemingly out of all proportion to its increase in length from seventy feet to seven thousand feet, may be inclined to wonder whether all this departmentalisation does not mean more cost without a corresponding increase in entertainment. If so, that is because he has never seen, or has forgotten, the films of thirty or forty years ago.

They came, haltingly but enterprisingly, from open air stages and were played by actors or amateurs who considered four shillings a fair remuneration for a day's work. They were produced by directors who were given a lump sum of ten pounds and told that their pay was anything that they could save from this amount after all out-goings had been accounted for.

That there is no comparison in entertainment value between the two goes without saying. That there was more adventure and a more colourful background to film making in pioneer days is equally undeniable, days when producers were almost piratical in their swashbuckling goings on, and a studio which boasted a roof was to be highly prized, while a leading man who owned two suits and was prepared to appear in both of them during the unfolding of one story was a veritable acquisition.

In later chapters we will turn the clock back and re-live that era, starting at its beginnings, fortunate in that not only the record but many of the actual participants are still with us to give first hand account, and counting ourselves doubly lucky because this new art was born in our century.

What would not the lover of the theatre give to meet and interview the players and producers of the Elizabethan stage? Players for Hepworth and American Biograph, and workers with Robert W. Paul and D. W. Griffith are still at hand; it is fitting to set down their experiences before they are lost for all time.

II

WHAT THE PUBLIC WANTS

THERE is one factor, most of us are apt to overlook, which makes the cinema different from every other type of entertainment.

It is topicality. Not topicality of themes and stories, or even acting and dress styles, but the mere newness of the films themselves.

Why this should be so it is almost impossible to say. The fact remains that the public demands the very newest films and scorns even those which are only a few months old. It is as though filmgoers had an unwritten law amongst themselves to keep abreast of the latest on the screen and to disdain anything which any other filmgoer had had a chance of seeing before them.

Certainly films are reissued from time to time. There are also one or two repertory cinemas. Neither attracts anything like the response of the latest releases. When, faced with a shortage of prints, the film trade decided on a London release system which enabled the North to see films a week ahead of the South, it feared a civil war. It was saved only by the fact that, to those in the North, those who live in that incredibly inaccessible place, the South, are almost like a lost race, and the South, smarting under the consciousness of its inferiority, put up no very strenuous resistance.

After a few weeks a film is, as far as the Trade is concerned, so much junk. This astonishes the film societies who cannot understand why masterpieces are not carefully stored. The film trade's explanation is that it has no room to store past successes which it may never reissue and that, because of the fire regulations, it has storage vaults only sufficient to keep on hand a supply of current attractions.

Besides, an old film has marketable possibilities which usually exceed those which it could earn as a film society masterpiece—it can be sold for junk, that is to firms which reclaim the silver salts from its emulsion and sell the celluloid to makers of patent leather.

To sell itself to the public, therefore, a film must be "The latest and the greatest". Film advertising does not use those grandiloquent

phrases of which it is so fond just because it likes beating the big drum ; it does it because experience has taught it that it is the best way to sell a film to the vast majority of film-goers. " The biggest yet . . . Greater than ever . . . The finest emotional experience of your life . . . " the phrases are not accidental ; they are designed to capture the attention of that vast concourse of cinema-goers who must have the latest—that throng which is not only indifferent to an old release but often quite definitely antagonistic towards it.

The intellectuals will doubtless disagree. If, however, they were to spend only a few weeks in a film distributors' office—and I have spent several years—they would have to readjust a lot of their preconceived ideas.

They would learn, for example, that in the Midlands are the true filmgoers of this country. They would see that the film companies dot the Midlands and the North of England with branch offices, while the whole of the South Coast areas are taken care of by London, and the whole of the South West by Cardiff. In fact, the South West, particularly Devon and Cornwall, is known to Wardour Street as " the film salesman's grave ".

The explanation ? Simply one of density of population ; the industrial centres of the Midlands and North make a greater concentration of cinemas possible. The agricultural districts, with meagre transport, are too scattered to make anything like a first-rate cinema possible except in the biggest market towns or fashionable seaside resorts. The position of entertainment in the South West is reflected even more markedly by the legitimate theatre. At the present time there is no permanent "live" theatre anywhere in the Duchy of Cornwall, the last legitimate theatre, going westwards, being at Plymouth.

Films, therefore, are made primarily for industrial populations, people who both work and live hard.

Film critics deride Wardour Street for its lack of culture. They profess to regard the chiefs of the film companies as roughnecks ignorant of the finer things of life, men intent only on thrusting the cheap and second-rate on audiences. To a certain degree they are correct. Many of them are, if not roughnecks, men who know little of art, literature, or music. But they are by no means *unaware* of these things. The highbrows would be surprised, if they worked in a film office for a month or two, to learn that the film bosses are intensely interested in the aesthetic pictures which the Fleet Street reviewers

laud to the skies. They have to be ; their jobs depend upon it.

They might be passing up on something which will make money.

I can hear the aesthetes mockingly re-echoing " Money ! "

Yet that is the crux of the situation. The film chief is elected to his position solely on his ability to make profits for shareholders. If he fails to make profits he is removed.

The aesthete, however, believes that he could make just as much money, if not more money, by showing better films.

Again first-hand experience in Wardour Street will soon prove this to be a fallacy. However much the highbrows sing the praises of a *Citizen Kane* it does not alter the fact that the public simply does not want a story which is not as clear as daylight. It likes its pictures to have a beginning and to start at the beginning, and to keep right on to the end ; it does not matter much whether the end is happy or sad, but it does like to know what the ending is. And if you tell the public that " Rosebud " is both the beginning and the end, it demands : " Who is Rosebud ? " And when you explain that Rosebud is a sledge of which a small boy was ruthlessly deprived and that, though he grows up wealthy, Rosebud represents all the play and leisure he has missed throughout his life, the public still is not impressed. " So what ? " seems to sum up its attitude.

The critics make the mistake of believing that the public knows what it wants. It doesn't. It only knows what it doesn't want.

Occasionally the film-going public will make an apparent *volte-face*. For several years, after being surfeited with Italian costume dramas, it refused to look at costume pictures. History was that dry stuff, consisting of meaningless names of kings and dates of battles, which one had to endure at school. Then Korda made *The Private Life of Henry VIII* and it was a tremendous success. The critics proclaimed that the dawn of a screen renaissance was at hand. It was not ; the public had flocked to see *The Private Life of Henry VIII* because it showed just what its title implied—a merry monarch going to bed with several assorted ladies. Such goings-on had not been seen on the screen before. There was not much subtlety about Henry's conquests ; the public knew just what he was up to, and, after years of de Mille's glittering but obscure toyings with the same subject, the public was highly gratified at having its longings at last fulfilled.

The public went to see lust, not Laughton.

One or two Shaw plays have been made as films. The first met with little success. Then Gabriel Pascal made *Pygmalion* and the

whole country flocked to see it. Gratified, Pascal made two more of Shaw's plays into films, but they did not capture the public's imagination—and pennies—as *Pygmalion* had done. Why, then, the success of that particular film and not its forerunners or follow-ups? Simply because the heroine used the word "bloody", at that time a novelty on the screen. It has been used a lot since by other producers in their pictures but has never again captured the public's fancy like the first occasion.

At this point the professional film highbrow is entitled to ask: How does the author know what the public thinks and wants and likes?

To that the answer is that I only know because the public has told me. I have stood at cinema doors and discussed these things with film-goers, and not in London alone, but in the mining towns of Wales, the mill towns of Lancashire, and the docks of Liverpool. I have talked with film-goers, not once or twice, but over a period of several years.

I learned some strange things. In one town in the North, audiences refuse to countenance as a Western any picture which had not got a stage coach in it; all Westerns without stage coaches are, they say, spurious imitations. I learned that one of the most prosperous film companies was one seldom mentioned by Fleet Street, namely Butcher's Film Service, which, producing pictures on an almost ridiculously small budget sees its money back four or five times over. Its stars are music hall comedians seldom heard of, let alone seen, in London.

"That's in the industrial areas," says the professional film critic. And the answer to that is: Not always. In a small residential town, with no industries beyond a little agriculture, a little boat building, and a certain amount of taking in of one another's washing, the local cinema played such much-heralded pictures as *Goodbye Mr. Chips* and *In Which We Serve*. Its biggest success, however, was chalked up by a light-hearted piece of slapstick called *Alf's Button Afloat*.

The reason is not obscure. Only the biggest towns have a music hall nowadays, yet there is still a potential public for the type of entertainment which the music hall provides. This accounts for the tremendous popularity of the Old Mother Riley series, of the George Formby films, and of the films made by Butcher's Film Service. Many of these are not given Press Shows. The critics scoff: "Too scared to show them?" Wardour Street remains silent, and the

gibe apparently sticks. The truth is that there is no need to show them to the Press ; in few cases will the films be booked in London. The film trade knows that it will sell them to tremendous profit in the North and Midlands—so why put on a Press show and have them jeered at ; after all, the people in the industrial areas know what they like and there is no reason to make them feel inferior for liking something which Fleet Street scoffs at.

There is a saying in Wardour Street to the effect that film criticism never yet made or broke a film. It is not quite true ; Fleet Street can point to one instance where it made such an outcry about an American film that the renters of it quickly withdrew it. It was not, however, a great victory for film critics, for the withdrawal was not occasioned by demerits of acting, story or production, but because it untruthfully showed American troops winning the campaign in Burma in World War II without the assistance of the numerically superior British troops who undoubtedly carried the brunt of the battle.

Certainly Wardour Street is sensitive about criticism, but not so much because of what is said but by the mere fact of its being said at all. Any provincial cinema manager will tell you that the thing which counts most with audiences is word of mouth advertising. That is to say, if Monday's audience goes back to factory, workshop and office on Tuesday morning and reports that the picture at the Palace is all right, then the proprietor can look forward to a good week. If, on the other hand, they report to their workmates or neighbours that the picture is no good, then a sparsely attended hall for the rest of the week is the result.

This is no current trend. It is something which is almost as old as the cinema industry itself. Such audiences, the managers of small town and rural picture houses will tell you, do not read criticism ; they read news of films and stars, but when it comes to weighing up whether a picture is good or not then they would far rather be guided by Bill Brown, who works on the next lathe and whose tastes are the same as their own, than by an unknown writer in far away Fleet Street who has so often advised them to see films which they hated or derided.

Certainly film criticism has a function and most certainly it is justifiable. Without its astringent correctives, producers would doubtless sink to some very depressing depths, but the audience for such medicine is, surely, the people who make pictures, not those

who see them. Thus the film trade newspapers, which both producers and distributors read with avidity, should be the correct medium for real hard-hitting reviewing. A glance at the film trade papers will show that this is just the dream of an idealist. Certainly they bestow praise where it is due. Alas, they also bestow it where it is not due at all. They have less than half an eye on aesthetics and much more than half an eye on their advertising accounts.

In a place by itself is broadcast film criticism. The film trade, in some measure justifiably, is very incensed at adverse criticism from the B.B.C. critics. The cause for this anger is quite simple. It is that the film trade believes that a high proportion of the public regards everything which comes from the B.B.C. as having an official hallmark on it, and that listeners, or at any rate a very large number of them, regard film criticism from radio critics in much the same light as they regard news bulletins and the time signal, namely as being "official". To make matters worse, the trade has no means of replying.

The film industry regards films as, in the main, a working-class entertainment. The phrase is an omnibus one which includes practically everyone except a few recluses, retired Blimps, and religious fanatics. It holds this belief because it sprang into almost overnight prosperity through the pennies of people who were too poor to pay even the modest sixpence of the music halls, let alone the shilling gallery of the legitimate theatre. It catered for those whose lives were so stunted that the printed page did not fire their imagination but who could find a grand, escapist world in the stories told by the silent screen.

This was particularly true in America where tens of thousands of immigrants were congregated in manufacturing towns and who, because of their ignorance of the language of the country of their adoption, found in the cheapness of the nickleodeons not only an amusement which suited their pockets but a brief respite from their terrible surroundings of factory and slum told in a language, or perhaps one should say absence of language, which was universally understood by Pole, Swede and German alike. More than that, these actors on the silver screen never grew tired or stale; they were just as ready to play for you when you came off the night shift in the early hours of the dawn as they were to entertain you close on midnight when you were preparing to go back into blood-swilled stockyard or down a mine.

They had other attributes as well. No matter where one worked they were friends one's workmates knew well. If you came from the back of beyond you may never have seen Webber and Fields of the variety stage, but most certainly you had seen Pearl White and Pickford, the Gish sisters and Fatty Arbuckle and Ford Sterling. They were a sheet anchor for those who drifted from town to town in search of work; Chaplin was Chaplin whether you were in Washington or Wisconsin. If you were lonely and a little homesick, at least your film favourites were there. They did not desert you.

Neither was that just a passing phase; during World War II, millions more film attendances were made than in peace time. There were contributory reasons, namely, a working public with money to spend and little to buy, and an absence of very many other forms of amusement, but one of the main reasons for increased attendances, as given by film-goers themselves, was that the films were a cure for loneliness, for boredom, and had an air of assured permanence about them which was comforting in a world apparently intent on annihilating itself. As one young soldier summed it up to me, "Everything else was pretty bloody, but the pictures were the same".

I have dealt with these things at length because they are necessary in evaluating what follows, the story of the growth of this tremendously influential yet tremendously human factor, the films, in our daily lives.

III

MOVIE METHUSELAHS

WHAT is the fascination of a picture which moves ? Presumably it is man's desire to imitate reality as nearly as possible. Psychologists would doubtless suggest that it is all part and parcel of man's desire to duplicate or to re-create himself.

Almost as far back as one can go in known history, men have shown a desire to suggest living movement in their drawings and paintings. Possibly the oldest known example is the lifelike drawing of a wild boar painted on the wall of a cave at Altamira in Spain.

The drawing does not, of course, move but the boar has been endowed with extra pairs of forelegs and hindlegs and the result, so far from being merely a nightmarish eight legged animal, really suggests a four legged animal with its legs extended in a stride vividly indicative of movement and speed. That drawing is twenty-five thousand years old. You will find its descendants in the drawings in school-boys' annuals in which misty dashes and scratches denote the rapid flight of a plane, or speed of a racing car or railway engine.

There is something more than mere impressionism in the cave man's work. He is indicating a desire to reproduce life itself as well as speed. Why do we want to counterfeit life ? What is there in our mental make-up, from childhood to old age, which makes us play-act or revel in the play-acting of others ?

Presumably it springs from a latent desire to control life, to make it conform to a pattern. We demand that our stories shall have a beginning and an end. When the adolescent girl demands handsome heroes on the screen she is only demanding that the screen counterfeit of life shall conform to her inward desire for a life which is perfectly arranged—the good are handsome, the bad are ugly. Commonsense tells her that this is not actually the case, but that is how she would like it to be. It would simplify life so.

This urge to control and order existence is probably as old as mankind itself. Some seven thousand years ago men had already

brought about a very large measure of this ordering and controlling of counterfeit life. The skill and finish displayed indicates that it was then no new thing ; if the age of the earth is to be reckoned in millions of years, even hundreds of millions, it seems safe to assume that these comparatively recent examples indicate a very long tradition indeed.

In Upper Java, five thousand years B.C., the natives were producing and presenting with a high degree of technical efficiency their own screen plays. Of course they had no cameras or films, but their dramas lacked little because of this. They cut their figures from pliable buffalo hide and mounted them on canes. The sun itself was their projector light, and the movable figures were shown in sharp dense shadows on to a thin, tightly stretched parchment mounted on a frame. They were the forerunners of the Chinese shadow shows.

There is still much room for speculation, however, as to why man was not content with puppets and marionettes and why he wanted to reproduce them, picture fashion, on a screen. Yet that urge to counterfeit life in a reflected form seems to have gripped man's imagination more and more strongly down the centuries until he has found almost complete fulfilment of his wish in to-day's film shows.

The creation of the camera obscura by Leonardo da Vinci in the fifteenth century was not, perhaps, entirely accidental.

Generally conceded to be the greatest painter and sculptor of his age, da Vinci was also a first-rate engineer, inventor and composer. His camera obscura was made, not as an idle pastime, but with a very definite end in view. The counterfeiting of reality in his paintings was, naturally, of prime importance to him. There were no mechanical means of reproducing the living scene. He desired, therefore, to make an apparatus which would trap the passing world on the wall or table of his studio, a sort of pocket world, living and in natural colours, which he could study and imitate on canvas. He had already dissected bodies of men and animals in his quest to discover just what controlled their movements in life and had stood at the edge of the executioner's block to study those who were about to die.

Now, in the shutter of a darkened room, he pierced a hole. Through this hole, life should enter ; it was no necromancer's dream. He had a reliable knowledge of optics and knew what the result was likely to be. The hole acted as a lens, concentrated the scene without, then spread it out upon the wall opposite. The hole was the narrow part

of a double-ended funnel ; life poured its rays of light in at one end, then flung them wide again at the other.

His darkened studio, in short, was the inside of a camera. The wall on which the world outside was reflected in miniature and in all the glow of its natural colouring was the plate or film of the modern camera enthusiast. Without photographic means he could not imprison or perpetuate the picture, though, as an artist, he could do better than that—he could reproduce it with his colours and brushes.

And there, for centuries, the camera obscura rested, awaiting the invention of photography. It still exists to-day in the roofs of pavilions on seaside piers.

In the darkened turret, for an admission fee of a few coppers, one can gaze down on a table on which the whole of the seafront, with its promenades and swarming sands, are reproduced in delightful miniature. A lens has taken the place of a hole, a lens which is mounted in a periscopic tube in the apex of the roof ; a simple chain device operated by the proprietor causes the tube to turn, and so the picture on the table, already instinct with the life of its totally unaware *dramatis personæ* on the esplanades and sands, takes on added movement, the slowly and stately panoramic progression from one end of the seafront to the other.

What is the secret of the delight which makes entertainment-satiated holidaymakers squeal with delicious impertinence over the antics of their fellow men, all unconscious of being observed ? Three yards away, without payment of the showman's modest charge, they could enjoy the same spectacle and its attendant sensations from morn till midnight free and uninterruptedly. There is, however, some magic in that moving picture spread on the table ; as they stumble into the daylight once more from that shadowed, salty little weather-board room they feel that, for a few minutes, they have been holding mankind almost literally in the palms of their hands, watching it dispassionately but not disinterestedly. It is good value for threepence to be made to feel the equal of the Olympians.

Two centuries before the Victorian's adopted da Vinci's camera obscura as one of their highly esteemed " harmless and instructive " amusements at the resorts they so oddly named watering-places, there had been projection of pictures on a screen by purely artificial means, that is to say artificially created pictures shown by means, not of the sun, but by artificial light. In short, by the magic lantern.

Its invention is attributed to Athanasius Kircher, a Jesuit monk

of Rome. In 1640 he invited several notable persons to witness the first projection of an apparatus called *Magia Catoptrica*.

His slides were handpainted on glass, and the whole thing being slightly akin to necromancy, it is fitting that his portrayals partook of the macabre, namely devils, skeletons, demons, and death. Two adjoining rooms were used for the demonstration. In one was a lamp with a reflector behind it to concentrate the rays upon an aperture cut in the wall separating the two apartments. In this hole a lens was placed. A simple carrier held the slide, a glass strip on which the pictures had been painted by hand. By this means greatly enlarged reproductions were thrown upon the opposite wall of the second apartment.

Boasting no condenser lens, the apparatus did not require the pictures to be placed upside down in the slide carrier, as was necessary in the optical lantern which, in the course of years, developed from his idea. Further developments included much more powerful illuminants than his simple oil lamp, and higher-grade optical systems than the single lens.

To Kircher, by the way, was also attributed the invention of a lamp which, never requiring refilling because it did not consume its fuel, would burn for ever. The wick, it is known, was of asbestos, but apart from the vague description of the fuel as being "a chemical preparation of gold", nothing further is known of his everlasting illuminant. It did not shed its light down the centuries as successfully as his magic lantern.

With the invention of the magic lantern, screened still-life pictures became a popular pastime, possibly reaching its zenith about two centuries later. Naturally, photography played little part in its first boom years, for the age of photography was only then just dawning. Hand-coloured pictures became all the rage, and the religious and temperance organisations used the magic lantern to the full both as an attraction to entertain, quite innocuously, their supporters, and as a means of propaganda for their beliefs.

The idyllic view of old mill and cattle in the Highland glen were superseded by pictures which told a story in sequential order, elementary forerunners of the moving picture scenario. The Biblical story was an obvious choice. Then came the temperance tract of the "Please don't sell any more drink to my father" type. With the introduction of photography came views of foreign parts, native customs, and the Vicar's holiday in Switzerland.

Almost foreshadowing what was to come, the sets of slides which told a complete story were also accompanied by a printed running commentary to be read by a lecturer as the pictures were presented. In fact, such religious series and their accompanying explanatory address are still obtainable. Lantern lecturing on travel, science, the arts, and kindred "serious" subjects, is still largely practised at up-to-date public libraries.

Along with the development of the story-series idea, an idea which embraced stories by the masters, such as *A Christmas Carol*, and poems ranging all the way from *The Lady of the Lake* to *The Fireman's Wedding*, there was also an attempt to make the pictures take on a semblance of movement.

The means used were simple in the extreme. The features of a negro, for instance, would be painted on a slide, but his eye-sockets would be left blank. The eyeballs would then be painted on another piece of glass of the same size and placed behind the first. By moving the rearmost glass from side to side while the front one remained still, the eyes would appear to glance from side to side.

The device became more ambitious. A train would travel across the countryside or a boat would cross the sea. Very popular were effects in which moonlight appeared to shimmer on water or the arms of a windmill were made to rotate. Also there were ingenious arrangements of glass which depicted clowns juggling, or an old gentleman asleep in bed with his mouth open who remained quite unaware that a rat had just popped into it—and kept on popping into it. Most of these depended on the juxtaposition of pieces of glass in which certain portions of the "master" slide were alternately revealed and blacked out.

Coloured patterns were also in vogue. Whirls and twirls of variegated colours were painted on two pieces of glass which were placed one behind the other and made to rotate in opposite directions by a simple gear mechanism actuated by a small brass handle. On the screen a truly brilliant kaleidoscope of ever changing coloured designs was the result.

In all of these we may read man's desire towards creating pictures possessed of movement. Parallel with them was another phase which has all but passed, the craze for panoramas.

The present generation of film-goers has probably never heard of these exhibitions, big, expensive, and very often well painted affairs, elaborately lighted, which attracted thousands of patrons.

One of the most popular was *The Panorama of London*, which attracted spectators for twenty years. It opened in a building called The Colosseum in Park Square, overlooking Regent's Park. With its large circular stage and its imposing colonnade, it moved Victorian writers to describe it as rivalling the architectural art of Italy ; a modern generation would be less impressed.

The show was a great picture of London as seen from the top of St. Paul's Cathedral. It consisted of forty-six thousand square feet of canvas, or just over an acre, painted to represent the city and immediate suburbs. Viewed from a gallery at one end of the building, the spectator beheld the City at his feet and its environs stretching away in the distance, the latter utilising perspective so neatly that the beholder had the impression of a view, with a natural-seeming sky painted on cyclorama principles, representing an horizon of one hundred and thirty miles.

Except for the inside of the dome of St. Paul's there was not, a century ago, any painted surface as large as this. The painting was, in fact, done from sketches made by an artist who hoisted himself up to a perch constructed for him on the top of the dome of St. Paul's Cathedral and he used two thousand sheets of paper to record what he saw. Then several artists were employed in copying them, greatly enlarged of course, on the canvas in The Colosseum. They worked from cradles and slings and each man executed his work in his own individual style, a Mr. E. T. Parris finally going over them, "with great enthusiasm and perseverance", we are told, until he had "reconciled them into harmonious whole". The picture was made even more realistic by having the campanile towers of the western front of the Cathedral built out on a platform immediately below that on which the beholder stood.

The show opened in 1829 and, after its record run of two decades, gave place to *London by Night*, apparently very much the same thing but with an effect of moonlight, flickering street lamps and lighted windows. And, forerunner of the urge to make pictures which moved, we are told that "the lights on the bridges sent forth their rays, and fell with pleasing effect on the rippling River".

A cynical generation may see in the conversion from day to night, after twenty years, an attempt to cover up fading scenery and cracking canvas. Another problem must have been the vast changes in the streets and buildings which made the show a little more

out of date with each passing year. Thus, a few years of *London By Night* and London became *Paris By Night*. This seems to have been a very impressive affair, for, after the spectators had assembled on the gallery, a bell rang and the curtain rose to reveal the towers, transepts and buttresses of Notre-Dame Cathedral, its windows aglow and "the water around its base reflecting back the last beams of the setting sun". These reflections disappeared and "the warm tints faded from the sky and gave place to the cool grey hue of twilight, and that again by night".

This century's film-goer may complain that this was no moving picture, until we learn that, after night had completely fallen, "the moon begins to emerge—very slowly—its first faint rays tempering apparently rather than dispersing the gloom; presently a slight radiance touches the top of one of the pinnacles of the cathedral, and glances as it were athwart the dark breast of the stream; now growing more powerful, the projections of Notre-Dame throw their light and fantastic shadows over the left side of the building, until at last, bursting forth in serene unclouded majesty, the whole scene is lit up".

There is much more in the same vein. We are told that the show had varying fortunes and changed hands several times, passing out of existence as a panorama in 1875.

It was not unique. There were many other panoramas, but possibly the most ambitious rival which the Colosseum at Regent's Park had was Wylde's Globe, in Leicester Square, a far different Leicester Square from that which now, at the time of writing, boasts four very large cinemas and two smaller ones.

In 1851 the entire Square was occupied by a large domed building in which was exhibited a gigantic globe. The whole world was figured in relief on the inside of the globe and was viewed from galleries at various elevations. Apparently the globe itself was sixty feet in diameter and the rest of the building housed exhibitions of other kinds. Guides explained "everything from China to Japan". After two years this show gave place to "a magnificent model of the Crimean War, presenting the positions of the different armies of the Allies and of the Russians".

In fact, there seems to have been a mild forerunner of the newsreels in this change of programme, for we are informed that "the positions of the armies were changed daily in accordance with the latest advices reaching London from the seat of the war and especially

from the graphic letters of Howard Russell" (who was war correspondent of *The Times*).

The Globe's span of life was about ten years, and it included depictions of the Indian Mutiny, panoramas of St. Petersburg and Moscow, but the whole edifice then fell into such a deplorable state that it became an eyesore. Leicester Square became the home of street vendor's stalls, the tents of penny showmen and the dim, noisy haunt of street women and roughs, until Baron Grant, with Queen Victoria's permission, swept away the Globe and turned the spot into the small public garden of to-day.

From The Colosseum and The Globe surely sprang the touring panoramas, the nearest approach to pre-film moving pictures of which there is still a vivid, living memory. In fact, I am informed that one of the greatest of these showmen, Poole of Poole's Diorama fame, is still very much to the fore as a showman, being now connected with the theatres of Gloucester.

The Diorama was a moving panorama. In fact in its more elaborate forms, it was several panoramas, and the pictures moved at various speeds and from both left to right and right to left.

A friend long associated with the music halls, Mr. Fred Watson, has given me this description: "One Diorama, I recall, represented a scene at sea. The back scene, representing the horizon and distant cliffs, gradually traversed the back of the stage, giving the impression of a moving viewpoint on the part of the spectator, as though he were on a ship. In front of this were two or three more panoramas representing the tops of the waves. These travelled at various speeds so that one got an effect of watching real, rippling water. In the foreground—that is, down by the footlights—was the stationary counterfeit of the bulwark of a ship, adorned with lifebelts and coils of rope and a gun.

"An enemy battleship was sighted, riding the waves of one of the mid-sea panoramas, and a battle ensued, with gun fire on both sides."

It seems that this show was travelling the music halls during the World War I of 1914-1918 and possibly was still touring at a much later date than that. Certain it is, that in 1924, the Admiralty Theatre at the British Empire Exhibition at Wembley, was presenting a very similar living picture of the Battle of Zeebrugge though films were then, of course, a commonplace. In the case of the Admiralty Theatre, the stage was a shallow tank of real water in which the attacking ships, in miniature, were operated by underwater controls,

either electric or pull wires. There were gunflashes and searchlights piercing the starry heavens, as represented by the cyclorama, and here again the performance started with a sunset and faded into night.

Running parallel to the early panoramas were devices for representing movement by mechanical means and utilising the very foundation stone of the present century's films, the inability of the human eye to distinguish a line of demarcation between one object and the next if they are presented at the rate of twelve, and upwards, per second.

This laziness on the part of our eyes is known as "persistence of vision". When we go to the cinema we see twenty-four photographs presented on the screen every second. As the photographs were filmed in the camera at the same speed, they represent one second of human activity split up into twenty-four still pictures. If they were projected on the screen continuously they would appear as a long, smeary blur from top to bottom of the screen.

So they are not projected continuously. They are projected separately, one after another. To do this, the film is made to come down into place and stop for a fraction of a second with one of its small photographs exactly behind the lens. Then a bladed shutter like a fan, interposes one of its leaves and momentarily cuts off the light. During this tremendously brief "blink" of darkness, the film moves on, and the next little photograph comes down behind the lens and is revealed on the screen because, by now, the blade of the fan-like shutter has passed on and left the lens uncovered.

Now the blade comes round again and cuts the light off again, just as the film moves on another step. This goes on at the rate of twenty-four such operations every second. Our eyes, watching the screen, are too slow to catch all these separate movements; in fact most of us would be prepared to swear that the screen does not go dark at all. Yet, if the projector were slowed down to a little under half speed, say ten pictures a second, the picture would appear to flicker, and if it ran at a slower rate still, the eye would not see a moving picture at all, but would see a succession of separate pictures without any appearance of life-like movement.

This explanation is couched in what newspaper editors call "popular language" because a grasp of it is necessary in order to follow the activities of the early moving picture inventors. Any learned work on optics will provide the serious inquirer with a great deal of profound, and much more accurate information on the

subject. The ordinary reader, however, can no doubt grasp all that is essential from the foregoing ; if not, he can carry out his own simple experiment in movie making by drawing a man, dancing, on the edge of every page of a note book, as the schoolboys do—the limbs in each picture in a slightly different position—and then flick the pages over between his thumb and forefinger, whereupon his dancer will spring into life.

He will see that if he turns the pages too slowly, he will see only still pictures, but that if he speeds up the leaves the figure will appear to move. Above all, he will realise that if he releases the leaves too fast, he will see only a blur of fluttering paper, and that in order for his eyes to record life-like movement, he must be able to see each tiny picture he has drawn as a separate entity for just a brief flash of time. Then he will be in full possession of the basic principle of persistence of vision.

More than that, he will realise that if his dancing man were a real man and was photographed instead of drawn, and that, if the film on which he was photographed was run through a cinema projector, then he would be seeing something which assuredly he has seen fifty or a hundred times in the cinema—a moving picture of someone dancing.

Perhaps he will say : “ That is all very well. I follow all that, but let us suppose I am watching a film of a boxing match. I can see the referee’s lips move and can hear him announce the names of the contestants, and I can hear the sound of the blows and the grunting and puffing of the men, the cheers of the crowd and the scuffle of the boxer’s feet ”.

True enough. That is because the sounds are photographed simultaneously with the pictures, but that belongs to a later episode in the cinema’s century of progress from toys depicting movement to the present day talkie.

Most of the toys which led up to the development of the film motion picture had jaw-breaking names. In scores of newspaper articles they have figured in completely chaotic sequence until the reader has become bewildered, thereby missing the real importance of how small contrivances for depicting movement, intended in many instances as passing novelties, led, step by step, to the creation of the cinema film, a fascinating subject which deserves, and now receives, a chapter which traces their first hesitant footsteps to full stride in progressive sequence.

IV

PRE-NATAL STIRRINGS

MANY were the toys contrived during the last century to give a semblance of movement to pictured objects. The earliest aimed only at making an object appear to move backwards and forwards from two fixed positions, but, in 1826, Sir John Herschel called attention to an effect which must have been seen by thousands of people but which had gone unremarked. Sir John Herschel was, apparently, the first man to realise that its optical illusion depended upon persistence of vision for its effect.

It was nothing more than the spinning of a shilling on a table as an after-dinner diversion. He called the attention of his guests to the fact that the two sides of the shilling appeared to merge and that both could be seen at one and the same time.

One of the guests mentioned it to a friend, a Dr. Fitton, who, after trying the trivial experiment for himself, devised a much more elaborate version of the spinning shilling, a disc of cardboard attached to the ends of two threads. On one side of the disc he painted a bird and on the other a cage. Then the threads were entwined by turning the card round and round. When the card was released it twirled rapidly, and, the two pictures merging, the bird appeared to be inside the cage.

This novelty caught on with the public. Elaborate versions of the simple toy were made, and some of them were sold for as much as seven shillings and sixpence.

But Sir John Herschel and Dr. Fitton had not invented a moving picture. Neither bird nor cage appeared to move. All they had done was to show the possibilities latent in persistence of vision when used for optical illusions.

Other minds applied themselves simultaneously to this phenomenon.

Peter Mark Roget, better known for his *Thesaurus* than for his investigations into optical illusions, a contemporary of Sir John

Herschel and Dr. Fitton, was also inquiring into persistence of vision.

Working in his study one blazing hot day, with the venetian blinds lowered, he was attracted by the rattling of a vehicle outside. It was only a baker's cart, and his eyes returned to the page of the book he had been reading. Then he realised that he had just seen something very odd. The slits in the blind had given him only sectional glimpses of the turning wheels of the cart, but he had received the impression that each section, glimpsed momentarily through the slits, had been standing still.

He made further investigations, read a paper on his chance discovery to the Royal Society—and there the matter remained.

Sir John Herschel had spun a shilling and, very blurred, had seen both sides of it at once. Roget had looked through the slats of a blind and had divided motion up into separate static glimpses.

There was a relation between the two things as far as the future of cinematography was concerned.

The moving pictures move because our eyes cannot distinguish between separate pictures ; and the separate pictures, like the wheels of the baker's cart seen through the blind, must be split up into separate " still " views if the illusion of movement is to be clean-cut and not like the blurred shilling.

Yet no one saw any connection because no one was trying to make a moving picture. These phenomena were simply matters of passing scientific inquiry, nothing more.

Michael Faraday delved into the subject for a time. He constructed machines which rotated slotted shutters at varying speeds, and then matched the speeds to those of various moving objects. He came to the not very profound discovery that fast-moving objects could be made to appear to slow down if the slots in the shutter were moved at such a speed that they appeared to " cut out " a lot of the object's progression, or, keeping pace with the moving object, could make it appear to be standing still.

It was a Dr. Plateau of Ghent, who gathered up all these fragments of information and investigation and contrived the first moving picture apparatus, a toy which he called the Phenakistoscope.

It was to be the first of many jaw-breaking names for simple appliances for giving an illusion of movement, and the Phenakistoscope was simplicity itself.

Two discs were mounted at either end of a short rod. The front disc had a number of slender slots punched in it. The second disc

had a series of fourteen pictures of a man painted on it. The man's arms and legs were in varying positions. The two discs rotated freely, and when they hit on a certain relativity of speed, the man, glimpsed through the slots as they passed before the eye, split up the man's movements into separate shots so that he actually appeared to be running.

The secret of the contrivance, if it can be called a secret, lay in the fact that the eye was deceived into seeing, not fourteen drawings of a man, but one man and, because each picture of him had been endowed with arms and legs in varying positions, this one man seemed to be moving his limbs.

That was in 1830. Three years later an elaborated version of the device appeared and was, for a couple of decades at least, a very popular toy, starting as one of those instructive drawing-room novelties, such as stereoscopic views, of which the early Victorians were so fond, and ending as a child's toy to be bought in almost every toy-shop.

It was devised by an Englishman, William George Horner, who called it the *Daedalum*, or *Wheel of the Devil*, its first animated pictures being of the Devil waving his trident and enticing the beholder to join him in the flames. It consisted of a shallow round tin about a foot in diameter which was freely mounted on a central stand. Vertical slots were cut in the edge of the shallow tin near its top. Fitting snugly inside the lower half of the tin, below the slots, was a fourteen-inch band of paper bearing innumerable pictures of the Devil in various postures. By rotating the whole contrivance on its stand and by glancing down through the slots at the paper band on the inside of the low, open-topped tin, one got the impression, as in the *Phenakistoscope*, of one Devil, a Devil who appeared to leap and gesticulate.

The Victorians did not much care for the name of the contrivance ; they soon changed it to *The Wheel of Life*. Pictures of galloping horses, boxers, dancers and jugglers took the place of the Devil. A refinement was a candle mounted above the central pivot to illumine the figure seen on the paper band. In its last phase, the *Wheel of Life* became known as the *Zoëtrope*.

There was still no attempt at a picture on a screen, and the *Zoëtrope* pictures were drawn by artists ; no photographic picture had been attempted for the simple reason that instantaneous photography had still to be perfected.

Yet, in its infancy, one man had seen the possibilities of using photographs in place of the artist's drawings.

He was Joseph Antoine Ferdinand Plateau of Ghent.

To the cynical there may be something ironical in the fact that this man who first thought of the possibilities of making photographs move was for the greater part of his life and during the major part of his researches, blind.

Plateau's first device was similar to Horner's. Even his subject was the same—the Devil blowing up a fire. It had to be drawn to his suggestion, for he was, by the date that he made his researches into moving pictures, already blind. He was very proud of the sensation which it caused, although he could only learn at second-hand the effect that it had on the beholders.

At twenty-eight, through looking at the sun to test its effect on the retina of the eye, he had impaired his sight. Though he recovered temporarily, his sight became steadily worse and worse during the next fourteen years until, in 1843, he had become totally blind. It was six years later that he made his "Diable soufflant", and, with the help of relatives who carried out his orders, kept up a never-ending succession of experiments aimed at the perfect moving picture in peep-show form.

The advantages of photography occurred to him, but he did no more than lay down the form in which it could be applied. All of the early seen-through-a-slot movies suffered from distortion. The slits tended to elongate the picture. Plateau thought that purposely-distorted photographs could be made to compensate for this.

Until the age of eighty-three, this indomitable blind man kept up his researches into pictures which moved. The fact that he was blind and could not see the fruits of his labours, so far from discouraging him, seemed to add a spur to his endeavours. It was as though he were determined to leave his mark on the world by giving to others the delight of the thing which he himself most desired but which he would not, and could not, himself see and enjoy.

His actual mark on the screen's development is small. Never once did it occur to him to have his pictures made on transparencies, like lantern slides, and rotate them before a light and behind a lens in order to obtain a screened picture. A very great pity, for he would then have been the first to achieve projection of a moving picture, and would have had a far greater claim to importance in the development of the cinema.

Concurrently with Plateau's experiments, a lieutenant in the Austrian army, Franz Uchatius, attempted to project moving pictures on a screen. The pictures were hand painted by an artist and were not photographs.

His first device followed Dr. Plateau's Phenakistoscope, the device already described in which the pictures were painted round the circumference of a disc and viewed through another slotted disc, both discs being mounted at opposite ends of a central axle. Uchatius caused his pictures to be painted on glass and put a light behind them. The slotted disc acted as a shutter. Using the same optical system as that in a magic lantern, he obtained a screened moving picture but it was a poor thing. The slotted disc cut off so much light that any picture bigger than six inches was practically indiscernible. That was in 1851.

Two years later he made another and more promising experiment. This time the disc containing the pictures remained still. In front of each picture was a lens. Behind the pictures was a light which went round and round, thereby illuminating each picture in turn. The lenses in front of the pictures were so tilted that each image was thrown upon exactly the same spot on the screen. In this way better illumination was obtained because there was no shutter to cut off the light. The apparatus was acclaimed at the Vienna Academy of Sciences, only to be forgotten as soon as its novelty waned.

The first use of photography to make a moving picture is claimed for Desvignes, who took Plateau's suggestion seriously and, in the last phase of the Zoëtrope's development, used photographs in place of the customary drawings.

Likewise, photographic pictures were shown on the Phenakistoscope in 1852. They were taken by an Englishman named Wenham, who posed a workmen in a series of 'still' attitudes indicative of progressive movement. The subject was shown pounding with a pestle in a mortar.

The result was only moderately life-like, apparently, for the sitter complained, when he saw the movie of himself on the toy, that 'he never worked like that'!

When Desvignes tried out a similar idea eight years later he did not risk movement on the part of his sitter—exposures had necessarily to be very long in those days—but used a steam engine as his subject.

Desvignes produced and showed his pictures in 1860. Naturally, his

plates were not fast enough to 'shoot' the steam engine while it was in motion. An engine, however, always moves in exactly the same way; its flywheel turns, its piston goes in and out, so Desvignes posed the steam engine in various frozen phases of movement and photographed them in his own good time! The outcome, on the Zoëtrope, was curious, for although his steam engine appeared to move in a most realistic and life-like manner, the pictures were in no sense an actual factual record of the machine in motion; the steam engine had been immobile when Desvignes shot it, only his elementary movie device brought it to life.

A year later, that is in 1861, a Doctor Coleman Sellers of Philadelphia, obtained a patent for a moving picture device in which photographic pictures, following Desvignes' lead, took the place of drawings. He took five or six stereoscopic photographs of his two little sons. One boy rocked himself in a rocking chair and the other hit a nail into a board with a hammer. Like Desvignes' pictures, they were not instantaneous. The two boys adopted different "still" phases of apparent movement so that their father could make the fairly long exposure necessary to secure clear photographs.

The pictures were then mounted, paddle-wheel fashion, in a peep-show box, where they were viewed through a shielded eyepiece having a pair of stereoscopic magnifying lenses. A handle at the side of the peep-show was turned and each picture clicked round into position—for Dr. Sellers had soon discovered that each picture must come down into place and be held momentarily by a spring rigger before making way for the next, the momentary pause being essential for persistence of vision to accomplish its function of impinging each image on the retina of the eye.

Doctor Coleman Sellers was the first man to realise that moving pictures, so far from moving continuously, should come to rest for a fraction of a second if they are to register clearly and effectively on the eye, but other pioneers of the moving picture, unaware of his work, had to learn this for themselves through painstaking experiments.

The descendants of Sellers' machine may still be seen in amusement arcades. The usual name for them is Mutoscopes, though Sellers called his machine the Kinematoscope, and they show hundreds of photographs illuminated by an electric light within the machine. Designed to entice coppers from bumpkins and adolescents, their subject matter usually borders on the mildly pornographic.

Even before Desvignes and Coleman Sellers had taken their moving pictures on glass plates, the moving picture was yet another step nearer realisation. Alexander Parkes, a Birmingham chemist, had invented celluloid, though he called it Parkesite, while, in a factory at Foot's Cray in Kent, another manufactory of celluloid had come into being. Glass plates were clumsy and cumbersome both in the camera and in projection. The advent of celluloid would solve many of the pioneer moving picture makers' difficulties, though, for some time, they were to go on experimenting with plates and with films made of paper, apparently unaware of the possibilities of the new base.

The invention of the flexible transparent base for photographs by Parkes in 1854 preceded the introduction of celluloid by John Carbutt in America by thirty-four years. And, just as in subsequent years America found it hard to believe that John Baird had perfected television and run it successfully in cinemas before they had even become aware of its potentialities, and later scoffed at those in this country who claimed to have seen large screen television at the Coliseum Theatre in London's St. Martin's Lane in 1929 as obviously exaggerating, in Mark Twain's phrase, something which never happened, so, when it was established that the Englishman, William Friese Greene invented the cinematograph several years before Thomas Edison's first film machine, certain American writers disputed his claim with the triumphant assertion that he could not possibly have done so because celluloid was not available, being introduced by John Carbutt between 1888 and 1889. They did not realise that, like television, Britain had Parkesite long before America had celluloid for a film base.

Coleman Sellers and Wenham were, with their photographic moving pictures, ahead of the general trend in 1860. For several years the moving picture continued to develop mainly along the lines of the Zoëtrope. Pictures, drawn by artists, actuated on the principle of the turning of leaves, became popular toys possessing the essential Victorian scientific tinge and continued to be the vogue well into the early 'seventies. Their names, Linnett's Kineograph and the Pocket Kinetoscope, have a prophetic tinge in the light of events. which followed after.

The magic lantern, as a means of projecting moving pictures, came into vogue in 1870.

In forty years the moving picture had moved very slowly from the

toy which made a bird appear in a cage, to a screened picture which could be viewed by a large audience.

Henry Renno Heyl, of Columbus, Ohio, screened the first photographed moving picture. It was not, however, a true depiction of movement. Following the steam engine pictures of Desvignes and the boys at play of Coleman Sellers, it was separately posed "still" pictures shown one after another in rapid, intermittent succession to give the appearance of movement.

Whereas Desvignes had used a Zoëtrope to show his pictures and Coleman Sellers a form of kinetoscope peep-show, Heyl used a magic lantern.

He took six pictures of a waltzing couple and mounted the glass plates radially round a disc which was so placed that each picture in turn adopted the position usually taken by the slide in the lantern. A slotted disc cut off the light momentarily to mask the shifting of each picture to make way for the next.

By printing his pictures several times over to fill the circumference of the wheel, he was able to give a constant representation of the waltz, and by continuing to turn the wheel, it was possible for the waltz to go on indefinitely.

Heyl showed his pictures at the American Academy of Music in Philadelphia one Saturday night in February, 1870. Music was synchronised to fit the movements of the waltz, and sixteen hundred people, most of whom paid fifty cents for admission, jammed the hall. They greeted the waltzers with loud applause, and, as an encore, were shown pictures of an acrobat which Heyl had prepared by similar frozen-motion photography.

The Philadelphia show possessed the demerit that, like the man with the pestle and mortar, it did not represent real movement but only a specially posed and static imitation of motion.

Parallel with it, however, came the first attempts to take instantaneous pictures of moving objects.

They were the work of Eadweard Muybridge, whose work is dealt with in the chapter which follows, but he had a very near competitor in Dr. E. J. Marey, of France, who, having seen the Englishman's moving pictures and heard him lecture, followed up the other's work by inventing an ingenious photographic gun which merits mention here.

His device looked like a rifle but worked like a revolver.

The lens was in the barrel, a telescopic lens because Marey wanted

to photograph birds in flight and the camera was held and sighted like a gun. When the bird flew into the sights, the trigger was pulled, whereupon, revolver fashion, with a glass plate going round instead of the chambers of the magazine, a series of pictures was exposed.

The trigger actuated a simple mechanism which rotated the glass photographic plate in the "chamber", stopping it momentarily at the exact instant that the camera shutter was opened to expose the picture.

As we shall see, Muybridge, the Englishman, took his moving pictures from a number of differing viewpoints. Though all the viewpoints were in close proximity, nevertheless they were different. The Frenchman, Marey, however, achieved pictures all taken from exactly the same standpoint. Marey could not, however, claim to have originated the moving picture, for he was, quite openly and admittedly, merely following in the Englishman's footsteps as a disciple of the new craft of bringing life to the screen.

In 1877 came the culmination of all Zoëtrope devices.

It was called Reynaud's Praxinoscope and it made its appearance on the Paris Boulevards before select audiences who regarded it with something like awe and veneration, for it was not only highly complicated but also, they felt, highly scientific and cultural, even if its moving pictures were a trifle hazy.

It was a Zoëtrope which threw pictures on a screen.

M. Reynaud, its originator, first of all came to the conclusion that the opaque spaces between the slots of the Zoëtrope cut off too much light from the eye when viewing the pictures. He therefore hit upon an ingenious way of doing without the slots.

Instead of looking through slits in the rotating tin, Reynaud placed mirrors, arranged in polygonal form, in the centre of the tin, one mirror for each of the pictures on the paper band. The spectator saw a reflection of each picture as it travelled by the mirrors, the divisions between the mirrors serving to split the passing pictures up into intermittently seen glimpses.

This, however, was only the first step. The inventor next did away with the tin cylinder entirely. And his paper bands of pictures became long reels mounted on drums, so placed that each picture in turn travelled before a light which threw their reflection on to a mirror which, in its turn, reflected them on to a large screen.

Nor was this all. Another lantern threw a permanent picture on to the screen of any desired background, a central portion of the slide being blacked out to accommodate the reflected moving Zoëtrope pictures.

It sounds, and was, complicated, but the accompanying picture (page 119) makes its salient points fairly evident—the spools on the table-top carry the paper transparencies, and the dumpy little lantern illuminates them, while the tilted, pepper-pot-shape lens throws their image up on to the mirror, which in turn projects them on to the screen at which the audience is looking. Just below the projection mirror is the magic lantern containing the slide of the static background scene which surrounds the figures on the sheet.

Not nearly so evident is how the inventor hoped to obtain a clear image utilising mirrors at so many divergent angles.

It was a brave attempt. M. Reynaud got his picture on the screen, to use the cinema world's counterpart of the theatre's "the show must go on", and even if its pictures were fuzzy and its vogue short-lived, M. Reynaud had brought about in 1877 the culmination of all the painted picture devices for making moving pictures. His grandly-titled Projection Praxinoscope or Praxinoscope Theatre was the zenith of the spinning shilling and the bird which appeared to be perched in its cage and of all those other dizzily-named "scopes" and "tropes" with which investigators were so happily occupied during the first forty years of desultory endeavour to make a satisfactory moving picture.

Things had been moving slowly but surely towards that objective, slowly because no one foresaw that there was a huge fortune to be made out of pictures which moved, or a new art form to be evolved, and a new industry to be born. To the mid-Victorians it was just a fascinating novelty with which to dicker, just a tantalising semi-scientific problem to be solved, and just a new phase of homely, innocent entertainment for those people who preferred the delights of the penny reading at church or chapel social to the raucous bawdiness of those rowdy, gas-lit establishments which Victorians, with an unhappy flair for making all back-sliding sound so much more wicked than it was in reality, called gin palaces.

Could they have foreseen that the Zoëtrope and Praxinoscope would lead to the picture *palace*, would they have cast such a benign eye on these innocuous playthings?

But then, though the movies were born in Victorian days, days when the theatre was regarded as taboo by the respectable middle classes and the music-hall as a sink of iniquity, the Victorian age never saw the emergence of the booming, thriving cinema as we know it to-day.

BIRTH PANGS

PRACTICALLY every film-goer has heard of the pictures of a galloping horse which Eadweard Muybridge made ; many have seen them projected. They have become part and parcel of film history, and have been variously miscalled "the first moving pictures" and the "first film show".

They were certainly not the first film show because Muybridge employed glass plates, when, in 1872, he made his moving pictures of a galloping horse, and, as we have seen, glass plate pictures which moved were not unknown before this date.

The true importance of the pictures of the galloping horse lies in the fact that they were photographs of real and continuous movement and not posed pictures to counterfeit action.

To those unacquainted with the famous galloping horse it should be explained that Muybridge took a series of glass plate photographs very rapidly, and one after another, of a galloping horse. He then mounted these pictures round the circumference of a wheel fifteen inches in diameter, and placed the wheel in a magic lantern so that each slide in turn occupied the place usually occupied by the ordinary lantern slide. By a simple ratchet device, he caused each picture to come into place and to be blacked out before giving place to the next.

The curious may see the actual apparatus, and many of the hundreds of sets of pictures of men, animals and even birds in motion which Muybridge afterwards made, in a small museum attached to the Public Library in Muybridge's native town of Kingston-on-Thames in Surrey.

Many strenuous attempts have been made by American writers to decry Muybridge's work. They have represented him as a murderer, as slightly demented and, finally, as a man who took advantage of the work of others and turned it to his own pecuniary advantage and who, as a self-appointed lecturer, deluded learned

societies into believing that he knew something about animal locomotion and its study whereas he was merely a mountebank.

If the latter were true, one can only say that he made a great success of his deception, publishing and selling countless expensive editions of his works and gaining a big reputation in the artistic circles of Paris for knowing what he was talking about.

By a curious coincidence, California was the scene of his first experiments in making moving pictures. He was employed by the United States Government in making a geodetic survey. A fall from an overland stage coach had resulted in several eccentricities developing, such as an abhorrence of riding in lifts, but to suggest that he was "queer in the head" is fantastic. At one period, about the time of his galloping horse pictures, he stood trial for shooting a man whom he believed, not unjustifiably it seems, to be his wife's lover. The shooting was highly dramatic, with Muybridge going to his victim's home and calling, in the darkness, for the other to come out, whereupon he said, "Here is a message from my wife", and shot him through the heart. The "unwritten law" was successfully invoked and Muybridge left the court a free man, free to continue his experiments with the moving picture.

A wager was the mainspring of his interest in the subject in the first instance. Later he became interested in the study of animal locomotion for its own sake.

Doubts have even been thrown on the story of the bet which hinged on whether or not a horse had all four hoofs off the ground at the same time during any part of its galloping stride.

There is no doubt about the matter at all; the bet was made by Governor Leland Stanford, who owned an important Californian racing stable, and two wealthy business men, James R. Keene and Frederick MacCrellish. Stanford, believing that a horse had all four hoofs off the ground at one time during its gait, backed his opinion for twenty-five thousand dollars against the contrary opinion of Keene and MacCrellish.

But the bet is only important in that, because of the amount at stake, the parties were prepared to spend quite a handsome sum in proving the matter once and for all, and thereby made Muybridge's somewhat expensive investigations possible.

They believed at first that isolated instantaneous photographs would settle the matter. Stanford employed Eadweard Muybridge to take the pictures, but Muybridge failed because, using wet plates

sensitised in a portable dark-room on the spot and a cumbersome stand camera, he could not get sufficiently quickly to work when the horse was driven in front of his lens. He made hundreds of attempts to secure a successful "snap", but only two or three contained even a bare hint that Stanford had not been wrong in his assertion.

Muybridge then suggested that he be given twenty-four cameras, to be placed in a row, and that a thread from the shutter of each should be stretched across a prepared track to a board fence on the opposite side. Then, if a horse were driven round the track, when it came to the threads, which were breast high, it would, he reasoned, break each in turn, thereby actuating the cameras and would, in fact, take twenty-four pictures of itself one after another.

The board fence was painted white and squared off with lines, "graph" fashion. This was done to throw the horse up into clear silhouette-like relief, the lines determining exactly how far above ground each hoof was at any given moment of its gait.

The theory was good but, in practice, the threads scared the horse or failed to pull the shutter release. The first attempts, however, were promising; what was needed was a better method.

Stanford called in a young railway engineer, John F. Isaacs, and asked him to help Muybridge. Isaacs suggested an adaptation of the electrical bell-push and the music box. In the latter, the drum, with short pins projecting from it, twangs predetermined metal strips which give off different musical notes. Isaacs arranged twenty-four pins and twenty-four electric contacts; when the cylinder revolved it "played" twenty-four bell-push contacts one after another; these contacts were wired, one each, to the twenty-four cameras. When the horse came by, the cylinder was switched on, and, as it revolved, it released, electrically, each of the camera shutters in turn. Thus twenty-four successive pictures of the horse were taken and the horse itself did not have to actuate the camera shutters.

The results were highly successful. Stanford won his bet, for Muybridge proved conclusively by his pictures that a horse does, at some phase, have all four hoofs off the ground when galloping.

Stanford, fascinated by the pictures, spent almost twice as much as he had won in having Muybridge continue taking pictures of all sorts of creatures in motion. For six years Muybridge was making sets of photographic plates showing men and beasts in movement. These pictures were made up into books and sold to subscribers

interested in zoology and sport, until Jean Louis Meissonier, the French artist, encountered them.

For many years he had speculated whether or not artists were always correct in their depiction of living creatures in movement. The galloping horse pictures, for example, proved once and for all that many painters had been wrong in their conception of a horse's stride. From then on, Muybridge became a protégé of Meissonier, and the English photographer found himself lionised in the artistic circles of Paris. He made his debut as a lecturer at a select gathering which included Alexander Dumas in its audience.

Muybridge was not, at the outset, the success Meissonier thought he would be. The artists pored over the pictures but proclaimed that they did not rule trickery in their preparation out of court.

Muybridge concluded that the only thing to do was to show the pictures, greatly enlarged, on a magic lantern screen. Meissonier, however, had a better idea. Why not use Franz Uchatius' machine which, as described in the previous chapter, enabled glass plate lantern slides to be shown in such rapid sequence that they appeared to come to life and move ?

Accordingly a new machine was prepared. Muybridge called it the Zoopraxiscopes. The galloping horse pictures were mounted round the rim of a rotating glass disc, in front of which an opaque disc of similar size, but with slots cut in it, was rotated in the opposite direction. Thus the spectator was vouchsafed a brief glimpse of each picture before it gave place to the next, with short intervals of darkness between each.

It was a moving picture but not an absolutely true representation of life, for each of his subjects had been immediately before the lens as each photograph was taken, therefore, though their limb movements were lifelike, they did not progress either forward or backward but appeared to allow the ground to speed away below them.

In the early 80's, Eadward Muybridge, a striking figure with a leonine mane of hair and a vast beard, to say nothing of a Mephistophelean cloak, came to London and lectured at the Royal Institution. Among his audiences were Alfred Lord Tennyson, Gladstone, Huxley and members of the Royal family.

He returned to America to become photographer to the University of Pennsylvania, where he continued his studies of animal locomotion. His work for Governor Stanford had been carried out on the Palo Alto race track ; the University offered far better facilities, and,

in the years which ensued, he published some half-a-dozen volumes containing his studies.

Investments in the then new Pullman Car Company made him a comparatively wealthy man. When he died, in 1904, his native Kingston-on-Thames received a handsome sum under his will as well as custody of all his apparatus and records, including his Zoopraxiscope projector.

Valuable as his work was in the artistic and zoological fields, it did not advance the development of the motion picture by one iota. Though human beings sometimes figured on his plates, Muybridge never thought in terms of acted drama or of recording events. In any event, his wheel could encompass only a couple of dozen photographs representing only a second or so of time. Then they repeated themselves, and repeated themselves again and again as the wheel went round and round.

The Zoopraxiscope accomplished what Muybridge wanted it to do—it depicted actual lifelike movement with accuracy, but he was in no sense the inventor of the cinema.

Controversy has always raged round the identity of the man who could justifiably claim that honour. By a sifting of all the available evidence, principally by a toothcomb search through the files of the Patent Office Library, I have no doubt at all as to the authenticity of the claims of William Friese Greene of Bath, England.

Before examining the evidence, however, it would be as well to review the claims of a Frenchman, Louis Le Prince.

Le Prince goes down in history not only as a picture pioneer but as the man who disappeared so completely and inexplicably that his case is now listed amongst the most outstanding examples of unexplained vanishings.

The son of a French officer, Louis Aimée Augustin Le Prince was born in Metz on August 28th, 1842. He was educated at the College of Bourges and St. Louis in Paris, and spent many years studying chemistry and physics at the University of Leipzig.

He was a striking figure, being six feet four inches in height. Though his father had intended that he should become a scientist, the youngster's interests lay in painting and photography, and he toured the South of France and Italy following these pursuits.

Daguerre, pioneer of photography, was a close friend of the family, and young Louis discussed the subject with the famous man

until, at last, he became fired with the desire to create that seemingly impossible thing—a photograph which moved.

It was while he was painting in Paris that he met a man of his own age who was destined to change his life. He was John Whitley, son of the founder of the famous firm of Yorkshire brass founders, who invited him to come to England and there introduced him to his sister, who also was a keen art student.

Le Prince was then twenty-four and impressionable. He fell in love with Miss Whitley and took up a position with the Whitley firm and made Leeds his home. Three years later he married Miss Whitley, but, when the Franco-Prussian War broke out, he returned to Paris and served during the Siege of Paris in the French Army.

In the early 70's he returned to Leeds, then visited America to sell the rights in a new process which his brother-in-law had perfected.

It has been said that it was while he was in New York that he became fired with the immense possibilities of his ideas for making a picture which moved because of what American showmen told him—namely that a fortune awaited the successful creator of a moving picture. This surely is nonsense because when, at length, it was an accomplished fact, few showmen saw much in the device beyond a passing novelty. Edison himself, a man who never touched anything unless he could see a substantial reward in it, predicted at the dawn of the moving picture era that a dozen (later he extended the figure to twenty) moving picture projectors would be all that the whole of the United States would "consume" before becoming satiated with the novelty of the thing.

It is possible, however, that Le Prince himself believed that his idea would be of inestimable value.

In after years his family became convinced that the fate which befell him was due to avaricious and jealous "big business" interests who stopped at nothing, not even murder, to remove him and his machine from their preserves.

Le Prince had his camera and projector built by a Yorkshire craftsman. He was so secretive about it he would not even tell his mechanic what his machine was supposed to do.

At this time Le Prince had founded an art school in Park Square, Leeds, and it is said that Eadweard Muybridge's glass plate movies of the galloping horse which he had seen both in Paris and London,

added fresh fuel to his zest to make a motion picture which would capture far more than just a single instant of movement. Already he was moving towards the orbit of the showman pure and simple. He was invited to paint and stage panoramas at an Earl's Court exhibition, and others in New York and Washington, and apparently carried out these commissions in a highly satisfactory manner.

It was in 1886 that he took out his first patent and, two years later, he was taking pictures of moving objects at the rate of twelve "frames" per second in the garden of a friend at Roundhay, Leeds. Later he took a further series of pictures, at the rate of twenty per second, from the window of Hicks Brothers' premises at the south-east corner of Leeds Bridge.

These first films were of paper, probably treated with oil to make them semi-transparent, and his first film show was in a workshop at Leeds, where six people saw his Leeds Bridge picture, but no record of their impressions seems to exist and, in later years, scoffers insisted that he never had shown any moving pictures then or thereafter. But here is direct evidence from his daughter: "I remember him when I was a very small child always talking and thinking about this idea. He had little money and his family was large, so it was difficult for him to do anything practical about it then, but when he went to New York he found some facilities for his work. That would be in the early eighties; my mother taught art at a deaf and dumb school and he had a little room there fitted up for his experiments. One day, when I was about fourteen, I wanted to call him to tea and I pushed open the door of the little room, and there, on the whitewashed wall, I saw some figures which moved. I did not know what they were and my father shut the door quickly, but I suppose I was the first child ever to see a moving film picture".

In August, 1890, Le Prince went to France to visit his brother, who was practising as an architect at Dijon. He was accompanied as far as Bourges by a Mr. and Mrs. Richard Wilson, a Leeds couple who knew him well. They noticed nothing untoward. He spent a few weeks with his brother as planned and the other then saw him off at Dijon on the Paris bound train on September 16th. Louis Le Prince was *en route* for New York, but whether or not he ever reached Paris is problematical though probable, for from that date to this, no one who knew Louis Le Prince ever saw him again.

He completely and utterly vanished, together with the whole of his bulky luggage containing his moving picture apparatus.

He had told his brother that he thought the time was ripe to sell his invention and that America offered a better field than Europe ; in this he was probably right, but there is no evidence to show that anyone outside his immediate circle knew his intention.

And there is one serious flaw in the argument that he was murdered to gain his secret. The murderer then, and to the present day, never seems to have done anything about exploiting it as his own.

If, as Le Prince's family were inclined to think, he was murdered by a rival to stop him putting his invention on the market before he had perfected his own, the theory falls down because, as far as all available records show, there was no one else in the running.

Weakest link of all in the chain is to be found in the fact that murder would not silence him for ever—his specification, as I discovered, was at that time already on record at the Patent Office, and had been for something like four years.

Then what did happen ? Did he lose his memory ? That is not a plausible explanation. A wanderer with a lost memory usually comes into the care of the police, a hospital or some other institution, where there would be little difficulty in identifying him ; there are comparatively few men six feet four in height, and fewer still who are reported as missing.

Something like nine out of every ten people who are reported as missing are, according to police officials, untraceable because they want to disappear, either to avoid financial or marital obligations. Such motives could certainly not be ascribed to Louis Le Prince ; his family life was happy, but, more than that, he was, according to his own belief, going to dispose of an invention which would net him thousands, and he could hardly accomplish that as an anonymous wanderer.

It is a baffling mystery ; chance foul play to rob him only of his watch and wallet is ruled out because his heavy and cumbersome luggage vanished as well.

For more than twenty years, his relatives kept up their endless search for even the slightest clue. They never found one. The outbreak of the first World War in August, 1914, put an end to their quest, though they have never given up hope that, one day, something will occur which will give a key to the mystery.

Did he ever reach Paris ? What happened to his apparatus—is it still mouldering somewhere in the garret haunt of an apache ?

It is a romantic thought, but, reviewing all the facts, a writer of

modern crime thrillers would probably sum up something like this : Le Prince was a powerfully built man and no stranger to Paris so that a chance footpad would have got short shrift from him, and, even if a footpad murdered him, the assailant would not have acquired his bulky luggage as well. Loss of memory also leaves the luggage an unsolved mystery, somewhere someone must at sometime have asked themselves what was in the cases and opened them, when at least one phase of the disappearance would have been revealed.

Somewhere between the two lies the secret of Le Prince's disappearance. Doubtless he was murdered. Likewise his luggage and its contents were destroyed, and the circumstances would obviously point to something like this : a confidence trickster heard him remark, in the manner of inventors, that the contents of his cases were worth thousands. He would not, however, dilate further for fear that someone might try to compete with him by turning their attention to the possibilities of reaping riches from pictures which moved. Therefore the trickster conjectured, from the size of the cases and their weight, that they contained jewels and plate which could be turned into ready money. Probably there was no intention to murder him but only to separate him from his luggage, but Le Prince, fearing his prized invention was being filched from him, put up such a show of resistance that he had to be killed. Then the thief or thieves opened his luggage and, to their chagrin, found only an unfamiliar and quite unsaleable camera and magic lantern and some tins containing rolls of little pictures. Such things were valueless to them ; the man with thousands in his cases was just another crackpot inventor. Thoroughly they removed every vestige of the crime, possibly using his apparatus to weight his body when they threw it in the Seine.

It is the only explanation which fits the facts. At any rate, for more than half a century people have tried to solve the mystery, speculating on the strange vagary of fortune which prevented our having the motion picture sooner than we did, but the fact is, that though people saw Louis Le Prince's picture and, in 1930, a band of enthusiasts erected a commemorative tablet to his memory on the outside of the workshop at Leeds where the first show is reputed to have been given, Le Prince's moving picture would not, according to the specification he filed, work satisfactorily.

His camera had sixteen lenses. Two separate and distinct films were wound on rollers from side to side. The shutters of the eight lenses facing one film were released one after another and took eight

pictures side by side. Then the shutters of the eight lenses below were released one after another ; while they were shooting, the exposed section of top film was wound on its rollers to make way for the next eight exposures. While the second " top set " of eight were being exposed, the film below moved up ready for its second broad-side, and so on until both rolls were exhausted. The same thing happened when the picture was projected, but, as there was no period of rest between one picture and another the two films were projected by a similar battery of sixteen lenses, each with its own shutter, the shutter of each being used to enable the beholder to glimpse the picture for a fraction of a second.

The system had one big, and fatal, drawback. The film, or rather the two films, bore pictures taken by sixteen lenses, all of them recording the scene from a slightly differing viewpoint ; though the first and second lenses were only an inch or so apart, there was a very wide difference between, to take the extreme instance, the top left-hand lens and the lower right-hand one. Therefore his screen picture must have been blurred. In taking distant objects this would not perhaps be very noticeable, but a foreground object, such as a pillar box, must obviously have appeared noticeably to move from right to left of its own volition, at the same time lowering and raising itself an inch or so every half second.

No, Louis Le Prince did not, to use the popular cliché, invent the cinema. Many men contributed to its invention, but, like Eadweard Muybridge, Le Prince's work, imaginative as it was in its conception, did not advance by one iota the quest for the true moving picture. His remarkable unsolved disappearance gives ground for fascinating speculation but those who have speculated during the years whether or not his missing luggage contained a secret, which, revealed, would antedate all other claimants as being the true inventor of the moving picture have only to reflect on what he patented to realise that he could not have secured a satisfactory picture. He did not use that invaluable ally, persistence of vision, to get his illusion of motion ; instead, his shutters were so operated that one was just on the point of closing as the next one opened, so that there was always a picture on the screen. There was no period of rest between, and, because wear and tear on the paper films which he used was so great, he placed them in a flexible carrier of wafer-thin metal, a sort of universal margin into which all films could be slipped.

By one of those curious quirks with which cinema history abounds,

he provided his metal carrier with perforations down either edge so that it could be engaged by a toothed cog which drew the film continuously through the projector. It was left to others to realise that in the perforations and cog lay the secret to true moving picture projection—the stop-start principle in which the film travels in a series of jerks to enable the eye to record a definite impression.

Even the inventors of the first film camera did not realise this, and although they hit upon the principle of taking moving pictures it was left to another man to perfect the system by which they are shown.

For no easily conjectured reason, though the two Englishmen, John Roebuck Rudge and William Friese Greene, took and projected pictures, they used the start-stop movement in their cameras—they had to stop the film momentarily while the photograph was impinged upon it by the lens—it never occurred to them that the film could be handled in exactly the same way in the projector and that a steady picture, free from blurring, would result, and that the eye, thanks to persistence of vision, would blend the separate images into a continuous flow.

John Roebuck Rudge was a professional inventor and William Friese Greene was a professional photographer. There is some doubt as to how closely they were allied in the making of moving pictures.

Rudge was by far the older man and it has been suggested that his were the brains and Friese Greene's was the money that made their combined efforts possible. This may have been the state of affairs in their early attempts but it is quite clear that Friese Greene took out the patents and it was Friese Greene's inventive brain which worked out many subsequent and worthwhile devices.

Though the cinema industry in this country recognises him as the originator of the moving picture, and a United States Court, after lengthy deliberations, proclaimed him the true and original inventor of the cinematograph, there is no clear line in the cinema's family tree which shows that Friese Greene's device led directly step by step, to the cinema. He, with Rudge's collaboration, made moving pictures, but the moving picture which we have to-day came, as we shall see, not directly from his work but by a roundabout route.

Nevertheless, Friese Greene and Rudge anticipated all other inventors in the field by a short start of a year or two.

Although born in Bristol—on September 7th, 1855—nearly all of William Friese Greene's work was carried out in Bath, and it is



Above) John Bryan's sketch for *The Happy Warrior* wine saloon in London's West End of the 70's and *(Below)* as it appeared in *Fanny By Gaslight*, with a court built in false perspective in the background of the set to give the impression of a large town





With models, built to exact scale, of elaborate composite sets it is possible for director and cameraman to study the possibilities for securing intricate camera angles



This London Underground railway train will never run outside the studio, but, in it, it slides realistically on its castors into the truncated scene of a terminal station, while its removable side sections enable the action inside the car to be filmed with an ease of lighting and facility for camera set-ups which would be impossible if a real train were used. Accuracy in the setting is essential and the Art Director and his draughtsmen seek the co-operation of the railway authorities, who supply blue prints and, in many cases, actual fittings and advertisements. It is left to the sound recordists to add the one missing link in the chain of reality, namely the sound of the train. In most film studios there is a library of noises and, in the case of Underground trains, most of them are recorded on the deserted platform of the now-abandoned British Museum tube station. The sound, however, must be very carefully modulated, otherwise it would swamp the dialogue and make it inaudible. In all railway, car and ship scenes at least three processes are involved in addition to the usual studio procedure; the conveyance must be faked in sections to give the camera latitude, the moving background beyond windows or port-holes must be faked by back projection, and the sound effects must be life-like



(Above) Only a pool built of boards, some hollow walls, suspended lights, a hair-dryer on the "rocks" (*centre*) to create a breeze, plants in pots-- but on the screen the audience sees it (*Below*) as a riverside landing stage in the cool of a summer evening



to Mr. Ernest Crawford of Bath that I am indebted for personal recollections of both Friese Greene and John Roebuck Rudge, whom he knew well.

Their experimental work was carried on at 34, Gay Street, and some of their earliest pictures were shown on the whitewashed wall of the underground kitchen there, the audience usually being a handful of Bath worthies. Mr. Crawford says : " I have seen the old chaps come upstairs full of astonishment and probably with a suspicion that this Bond Street wizard had some dealings with the Evil One, although a schoolboy would jeer at such pictures now ".

The reference to Bond Street is to William Friese Greene's house in Bath, which was at 1, New Bond Street Place. He also had a photographer's studio at 7, The Corridor, Bath, where, at the time of writing, a member of the family still carries on the profession. It was in this studio that the first moving pictures were filmed.

William Friese Greene was a flamboyant person. His professional advertisements were couched in verse, and he affected an artist's smock and painter's palette and brushes, while, in the waiting room was a half-finished study in oils. When sitters were announced he would take up his props and allow himself to be discovered profoundly absorbed in this higher art as they entered.

Rudge on the other hand, a tall, spare man, was quiet and unaffected and boasted little of the showman in his make-up.

As far back as 1862, Rudge was making experiments with magic lanterns in an endeavour to make a picture which moved. Greene was then still a schoolboy at Bristol. One of Rudge's most notable early accomplishments was an electrically propelled boat, while, years before the big companies had thought of electric trains, Rudge was running a miniature electric railway in the Sydney Gardens in Bath.

It was Rudge who created and patented " in or about 1885 ", although it seems to have been in existence ten years before, a Biophantascope lantern for showing primitive moving pictures.

According to a nephew, Rudge could not proceed further with his device because of lack of funds. William Friese Greene was depicted on one of these early motion pictures ; he was shown removing his head and placing it under his arm (accomplished by blacking out part of the plate and by double printing), and also winking his eye with a friendly grin, and it was Friese Greene who ultimately saw in this glass plate movie developments which led him

to create his own moving picture film device, made possible by the invention of celluloid.

The source from which Friese Greene obtained his celluloid was Parkes of Birmingham. Before using celluloid films, he had used paper films dipped in oil to make them translucent, one of which I have seen projected and which certainly gives a moderately clear picture on the screen. The point would not be important were it not that one American claimant for his country's priority in the matter of film invention roundly declared that Friese Greene could not have made films at the date which he said he did because the Eastman Kodak roll film was not then in existence.

To Friese Greene's disappointment, the celluloid which he obtained was in sheets and not in strips, and its surface was marred by lumps. By rubbing briskly with emery cloth he disposed of most of the blemishes. By suspending the sheets over the steam from the spouts of thirty kettles in the low-ceilinged kitchen at the Gay Street premises until it was pulpy, and then feeding it through the rollers of a wringer, he made it sufficiently malleable for his use.

In a dark room he coated it with photographic emulsion, then cut it into strips, joined these end to end and loaded them into his camera.

This camera had been born of his realisation of the limitations of Rudge's Biaphantoscope apparatus. In this Rudge arranged a plate on which were four photographs, each bearing a slight change of expression on the part of the subject. This was placed in an optical lantern. A simple ratchet clicked the pictures up and down and to and fro, while blades, like those of a pair of garden shears, snapped open and shut to allow each image to appear for an instant on the screen before revealing the next. The action was sufficiently quick to give an impression of continuous movement.

In after years, Greene and Rudge liked to recall with amusement the first time they showed this apparatus publicly. It was at a Penny Reading (excerpts from the classics were read in fine, sonorous style and a few lantern slides were shown, the admission charge being one penny) in Bath. A girl was portrayed smiling and glancing from left to right.

An old lady in the audience refused to believe her own eyes and was so convinced that a real head was protruding through the screen she decided to deal with the deceiver in no uncertain manner. Stalking down the gangway she dealt the face a vigorous jab with

her umbrella, only to retire discomfited when she discovered that it really was a moving picture.

Rudge's device was little more than Muybridge's galloping horse all over again. With films, Friese Greene argued, he could make longer, continuous pictures. It was one thing, however, to take four separate exposures on a plate while the model held each position, and quite another to go out and about snapping objects which were in entirely unrehearsed movement.

His first film was of cabs passing London's Hyde Park Corner, which he took in January, 1889. At this time he was in a flourishing way of business, with forty photographic establishments under his management. At one of his portrait studios, at 92, Piccadilly, close to the Naval and Military Club, he had given the public a foretaste of what was to come by showing the Biaphantoscope in his window.

This primitive picture depicted a skeleton dancing. The machine was operated by a boy named Tallis. Its appearance was greeted with acclaim by the passers-by. Soon they blocked the whole width of the street and the police intervened but Tallis refused to stop turning the handle, and had to be torn forcibly from the machine.

At 20, Brooke Street, Holborn, Friese Greene worked far into the night developing and printing his Hyde Park film. It was only twenty feet long and was in the form of an endless band. When, feverishly, he started turning the handle of his projector, there, on the screen, tottering and shaking a little, was a clearly recognisable picture of cabs and pedestrians hurrying past Hyde Park Corner.

Friese Greene's excitement was boundless. He hurried out into the chill, dark street and dragged in the first passer-by he encountered to see the wonder which he had wrought. The other man was a policeman on his nightly patrol. Amazed and bemused, he peered at the screen. There, sure enough, were moving cabs and hurrying people on the sheet.

He blundered out into the night, mumbling through his beard : " It's a miracle. I've seen a miracle ".

On June 21st, 1889, Friese Greene was granted a patent for his invention.

Now, he was certain, great wealth was within his grasp.

The leading trade journal, *The Optical Magic Lantern Journal and Photographic Enlarger*, hailed the new invention with enthusiasm. In the following " notice " not only is praise bestowed with a generous pen and the talkie, then still in the unknowable future,

foretold with journalistic gusto, but, reading between the lines, one can realise just how unthinkable a picture which moved was, not only to the public at large, but also to the professional photographers and lantern operators who read the paper, for the writer has to stress for their benefit just exactly what a moving picture would look like :

" Some very novel improvements, in which the lantern plays an important part, have recently been made, and it seems probable that in years to come we shall, by the aid of photography, the phonograph, and the optical lantern, be able to hear and see the facial expression accompanying recitations and songs uttered by our artistes of the present day. We may then expect to find in dealers' catalogues such entries as : The Bay of Biscay cylinder for the phonograph with set of facial expressions of Mr. — as sung by him at the Albert Hall in 1899.

" It would doubtless seem strange if upon a screen a portrait (head) of a person were projected, and this picture slowly became of an animated character, opened its mouth and began to talk, accompanied by an ever-changing countenance, including the formation of the mouth as each peculiar sound is uttered ; or if, instead of one head, two were produced, and an argument gone through with all the turns and twists of the head incidental to such.

" It would also appear curious to have a street scene depicted on the screen, and for the spectators to witness the various horses and vehicles running past in all directions, persons walking to and fro, and dogs running along, all at varying speeds, and with life-like motion, and not go past in a gliding manner—all this not as silhouettes, but with all detail.

" Strange as all this may seem, it is now an accomplished fact, and the optical lantern will shortly be considered a *sine qua non* as a recording instrument.

" Imagine the sensation that would be produced if the whole of the recent Lord Mayor's Show were to be presented upon a screen exactly as seen by a person stationed at one particular point looking across the street. The houses on the opposite side would remain stationary, and the procession would pass along, each minute movement, as it actually took place at this given point, being represented.

" The name of Friese Greene, the eminent photographer, of Brooke Street, will become familiar throughout the land in connection with an invention by which all these effects can be produced."

Unfortunately, although these prophecies came true, they rewarded Friese Greene hardly at all. The plain, simple truth is that, though he expended something like £16,000 during his lifetime on perfecting moving picture apparatus, including colour films, he probably never even saw his money back, let alone showed a profit on the device.

He displayed his invention to photographic societies. The members

were mildly interested. It was an amusing affair but, so it seemed to them, there was no particular future in it. Taking still portraits and studies was an art while moving pictures were mere reportage, so ran their comments.

The War Office gave him five guineas and bade him visit the Isle of Wight to take experimental pictures for them, and, though a subsequent report stated that the idea might have its uses in "taking aerial pictures from balloons in war-time", the matter rested there.

He wrote to Edison and suggested that his moving pictures should be linked with the other's newly invented phonograph talking machine to provide pictures which talked. Edison asked for details and Friese Greene supplied blue prints, but heard no more. Friese Greene did not know it, but, at the time, Edison was busy trying to link pictures with his phonograph cylinders but, for some extraordinary reason, he was trying to mount the pictures on a cylinder, in a spiral, so that, as one listened to the tinny sounds from the trumpet, one peered through a magnifying glass at the pinhead-size pictures rotating on the second cylinder, an idea which he stuck to staunchly until he had lost the race to perfect a moving picture. He was convinced then, as he still was long afterwards, that a moving picture should only entertain one patron at a time and that each should pay his few coppers for the privilege of peeping at it, and that to show pictures on a screen to a lot of people simultaneously was to exhaust its money-making proclivities almost at the outset.

From the moving picture, Friese Greene turned his attention to other inventions—X-rays, wireless, pictures by wire, printing without ink, explosives and airships, but he always came back to his first love and thereby ruined himself.

In 1891 he was committed to Brixton Prison for debt. While he was in prison, the whole of his household effects and his original cinematograph apparatus were sold by auction. Many of his earliest machines, invaluable museum pieces, were knocked down for a few shillings and carted away by casual purchasers who did not really know what they had bought. To this day some of the items have still to come to light.

On his release he allowed many of his patents to lapse because he lacked funds, and he himself had to sell the fittings from his laboratory to make ends meet.

By the following year he had perfected a new film camera, and,

during the years which followed, he experienced a succession of ups and downs, with downs predominating.

In 1916 his resources were at such a low ebb that an appeal was launched on his behalf and the film magnates were asked to contribute.

This whip-round among the cinema czars raised £136 os. 2d.

On a shelf, almost forgotten, still reposed four little rolls of film, Hyde Park Corner, Brighton Street Scene, Mr. Alfred J. Carter and his son Bert in Hyde Park, and Traffic in King's Road, Chelsea.

They had, indirectly, laid the foundations of the cinema, but only indirectly and, perhaps rightly, the wealthy men of the cinema did not see that they were indebted to Friese Greene for their fortunes, but he certainly did not merit the last, most tragic blow of all.

True he had made money during these later years—notably by a device for printing postcards in colour by a cheap and novel method, and, before the first World War he had had a modest film studio, an open-air platform on which the scenery was mounted fully exposed to the glare of the sun. It was situated in a garden behind the Queen's Theatre in Brighton. Here, with his son as cameraman, he made blood and thunder melodramas, including *The Stranglers of Paris* in half a reel.

Those days of brief periods of affluence were over, and, worse still, our film business was in a bad way. American competition was intense. With the outbreak of the first World War British producers found themselves short of men and materials, and they thought their burdens too great and their returns too small to enable them to carry on. The production of films merely limped on. By 1921 it had almost entirely halted.

On May 5th of that year a meeting was held at the Connaught Rooms in London to examine the position. Lord Beaverbrook was in the chair.

Speaker after speaker outlined the gloomy situation of the film producer in a market overstocked with American pictures at cut rates.

The feeling at the meeting was defeatist.

The inquest was almost over and British films buried for all time when a grey-haired, stooping, shabbily-dressed man rose and made an impassioned plea for the reprieve of our native film industry. He made a stirring appeal for a new spirit. He asked his hearers to forget the squabbles which were enabling the Americans to divide and conquer.

Few of his hearers knew who he was, but soon his name was being whispered round the meeting—"William Friese Greene", a very game old boy, still going strong at sixty-five.

His impassioned plea won them over. They decided to reprieve the film industry and try to set it on its feet again. Friese Greene sat quietly awaiting the result of their deliberations. Then, satisfied that he had won them over and "the pictures" which he had invented would go on, he died.

There was a little confusion and the meeting broke up in disorder. Few of the influential men there knew much about him, or about the kitchen at Gay Street, and the lady with the umbrella who poked at the eyes on the sheet, or the palette and paints used to impress sitters for portraits, and the kettles steaming the celluloid sheets, or the page boy in Piccadilly who would not stop turning the handle, or *The Strangers of Paris* on the open-air stage at Brighton, least of all did they know about Brixton Prison and the lapsed patents, or the policeman dragged in out of the night to see the Hyde Park Corner film.

It was a policeman who now propelled his body through the streets on a wheeled stretcher to the mortuary. There they found in his pocket a battered leather purse with one shilling and tenpence in it. It was all Friese Greene possessed in the world, the price of a cinema seat.

Soon, however, he was to have something which no one else will ever have, the proud inscription on his grave in Highgate Cemetery, where he lies beside his wife, who only survived him by two months—

WILLIAM FRIESE GREENE

The Inventor of Cinematography

His genius bestowed upon humanity the
bcon of commercial cinematography, of
which he was the first inventor and
patentee.

The inventor of cinematography—it is a bold claim but probably as near the truth as one is ever likely to get, yet his invention availed him nothing.

It was left to two Frenchmen, the Lumière's, to give the first public show and to beat by only a few hours presentation of a similar device by an Englishman, Robert W. Paul.

VI

THE STUDIO MAKES ITS BOW

THE Lumière brothers, the very first promoters of public film shows, were two Frenchmen who came from a family which had both ability and enterprise, though it was Louis Lumière who was the prime mover.

He was born on October 8th, 1864, at Besançon, France, one of a family of six. To make ends meet, Louis's father abandoned his trade of sign painter to take up the new and more lucrative calling of photographer. It was a rare calling in the 80's, although, already, photography was looked upon as the coming thing.

Auguste and Louis were in due course taught the arts and secrets of the profession.

Fired with ambition, their father started a small factory to make photographic accessories, but, in 1881, when Louis was a lad of seventeen, and Auguste, two years older, had just returned from compulsory military service, the little business was in financial difficulties. The two youngsters assured their father that they would find a solution.

At school, Louis had experimented to find a more sensitive emulsion on which to take photographs than that in use. He now turned to it again and, within a year, had discovered the secret of silver bromide. With his brother he made a plate which, proving that silver bromide was a great boon, they manufactured in quantity. Within twelve months all their father's creditors had been paid.

The two young men married two sisters and both couples lived in the same house and shared the same table. They established their father in a large mansion nearby.

They now all had substantial means, but Louis was still striving for something bigger than the silver bromide discovery. One night in 1894 he did not sleep. In an amusement arcade he had seen one of Edison's kinetoscopes, a penny-in-the-slot machine which showed a forty-foot length of film.

The kinoscope played an important part in film developments although it was not the forerunner of the cinema. Its film moved continuously and, through a peep-hole and the blades of a whirling shutter, its picture was viewed against a powerful light bulb. The flashes seen through the blades of the shutter sufficed to impinge the picture on the eye and to give the impression of motion. The film, however, could not be projected by this means. Because it moved continuously, not intermittently, it had to travel at great speed and the periods during which the light was obscured by the shutter were far greater than in an ordinary screened picture. To view it directly against a strong light was one thing, to try to get a powerful enough light to throw it, greatly enlarged, upon a screen was another.

Edison and his assistants tried to do it; they even tried to synchronise it with a voice on a cylinder-type phonograph and signally failed in both experiments. The picture was dim and its action blurred and unrecognisable.

Louis Lumière wondered, however, if the pictures might be halted for a fraction of a second so that they would register distinctly on the eye of the beholder, and, at breakfast next morning, he told his brother Auguste that he thought he had found the solution.

He had "invented" something which William Friese Greene had already achieved, but, whereas Friese Greene failed because of the monetary difficulties which beset him, the Lumières now went on from strength to strength.

On December 28th, 1895, Louis Lumière opened the first public picture show. It was in a room called the Salon Indien in the basement of the Grand Café in the Boulevard des Capucines in Paris. The admission charge was one franc and the first day's takings amounted to just under thirty shillings. Louis Lumière called his show *Le Cinématographe*.

Very quickly it became a sensation and soon New York, Madrid, Berlin, Vienna, St. Petersburg and other capitals and important cities were asking for similar performances to be staged.

Under the enterprising leadership of Quintin Hogg, the Polytechnic in Regent Street invited Lumière to visit London and give his show. Eventually Lumière sent over his representative, M. Trewey, and, on February 20th, 1896, the British public were, for the first time, admitted to a film show, all preceding shows by Friese Greene having been either glass-plate movies to which

admission was a penny or film shows to which only a private audience of members of learned societies had been admitted.

Mr. Matt Raymond was the operator who worked the machine at the Lumière show and he and the whole of the staff were sworn to secrecy as to the methods by which the pictures were shown.

There were twenty-five short films available, and the programme was varied from performance to performance, about half a dozen subjects being shown at each house. Some of the titles were *Arrival of a Train at a Country Station*, *Fall of a Wall*, *A Quiet Game of Écarté*, *Racecourse Scene*, *Blacksmith at Work*, *Babies Playing*, *Charge of Cavalry* and *Teasing the Gardener*, or perhaps it is more correct to say that these were the names by which the films were known, for there was no printed title on them. Printed titles did not come into vogue until much later, and then only in face of protests by showmen who objected to paying for lettering matter instead of pictures.

The bill outside the hall announced: "Wonderful Living Pictures", and the admission was one shilling, the programme lasting half an hour. The seating consisted of wooden chairs and forms.

M. Trewey went on the stage and extolled the wonders of the new animated form of photography. Then a lecturer, François Pochet, took over, and, in broken English, gave a commentary to the films as they were shown as well as a brief introductory talk to each new subject as the operator changed the reels.

Sound effects were provided by an assistant behind the screen—the sound of the surf, the falling of the wall. As for the train entering a station, this was almost too realistic for some of the audience and they nervously started towards the exits as it steamed, head on, towards them.

Such was the first film show. The subsequent events which it set in motion are still going strong, and so, at the time of writing, is Lumière, though not in the cinema field. Having made a moderate fortune from his cinématographe and the photographic factory at Lyons, he turned, twenty years ago, to medicine, and after examining eighty thousand sufferers and working in collaboration with the Clinical Professor of Surgery at Lyons University, believes that he has discovered, not the cure for, but the cause of, cancer, about which he has written over eight hundred papers and several scientific books. Though not a qualified doctor he has gained much

more than merely respectful attention on the part of specialists. He himself believes that, though he did not begin this new sphere of activity until he was sixty, he may yet go down in history for a discovery even more important than that of cinematography.

From Lumière's first show in Paris sprang one of France's earliest and most important film producers—George Melies. He took the device and, from mere reportage of actual events, made it into an instrument for telling imagined and imaginative stories.

He was thirty-four, this impetuous young visionary who built up a tremendous edifice of trick and fantasy pictures from Lumière's device. He saw the show in the basement room in the Grand Café and, long before the performance was over, had begged Lumière to sell it to him, raising his offer for it from ten to fifty thousand francs in as many seconds, but Lumière would not sell. "It is not for sale," Lumière kept repeating, and, when Melies grew more insistent than ever, he is said to have snapped his head off with: "You should think yourself lucky that I will not sell because it would ruin you. It is just a scientific novelty of the moment; there is no future for it."

Melies had to accept that as the final refusal but he did not bow to it and, very soon, he had a little picture show of his own in the Boulevard des Italiens. He tinkered up a machine to show the Edison kinetoscope films on a screen but, this proving unsatisfactory, he later acquired very much better apparatus from Robert W. Paul, the English manufacturer.

Melies was a curious compound of creative artist, engineer and schoolboy. He had been, in turn, a painter and caricaturist on a newspaper, a mechanic and a carpenter, a draughtsman and an electrician. As a schoolboy he had built a puppet theatre in his desk. As a young man he became manager of the Theatre Robert-Houdin in Passage de l'Opéra in Paris and had given a mixed bill of magic, *tableaux vivants*, marionettes, and electrical wizardry.

His imagination was enormous and his aptitude for making his dreams into realities, if only lath, plaster and pasteboard realities daubed with scenic artist's paint, was tremendous. From showing films he soon developed into a producer.

Magical effects played a very large part in his film productions. Before the cinématographe of Lumière was a year old, Georges Melies was producing films about a haunted inn, with magical ghost effects, and a one-reel picture called *The Laboratory of Mephistopheles*.

It is said that his early trick films developed from a purely accidental discovery ; one day he was taking some shots of traffic in the Place de l'Opéra when the film jammed. When he had freed it and started turning the handle again—all cameras were then of course hand turned—the traffic which had been approaching had passed and given place to other vehicles. When he projected the film a horse-bus on the screen appeared miraculously to change into a hearse. The effect was so macabre that his volatile nature could not resist it ; from now on his films were made with stop-start camera tricks. He had found the answer to every one of the professional illusionist's demands. He could turn a pumpkin into a coach and mice into horses, he could make people appear and disappear in a flash, he could make tiny models appear life-size and life-size people appear as Lilliputians.

At first his studio was nothing more than a platform in the open air but one day, when the cinema was still less than two years old in France, the famous singer Paulos came to him and suggested that he should take pictures of him singing and show them in synchronisation with some records which he had made for the phonograph. Melies agreed, but Paulos, at the last moment, refused to appear in make-up in broad daylight, neither would he abandon his make-up. Eventually Melies rigged up some lamps indoors and took the film by artificial light.

The result pleased him. He determined to make a permanent studio. If built of glass, this would enable him to use both daylight and artificial light.

It was constructed in the garden behind his house in Montreuil. Melies was apt to describe it as a huge building and doubtless to him it seemed an imposing place, but I am told by those who have been inside it that it was fifty feet long and thirty feet wide or roughly the dimensions of an ordinary village hall though somewhat loftier.

It was equipped with every trick device the stage has known, including wires rendered invisible by smoking them with a candle, trap doors, spring boards, mirrors, drums for hauling objects aloft, and winches for drawing things along.

In this magician's paradise, Melies had a great time—while it lasted. Here he made *A Trip to the Moon*, now a classic with the film societies. It depicts a greybeard professor announcing the discovery of the secrets of travel in interplanetary space and an adjournment with his colleagues to inspect his rocket, which is attended by a

beauty chorus in tights. The rocket is then fired at the moon, where the learned men land and where they are attacked by weird moon-men. Making their escape, they regain their rocket, take off for the earth but fall into the sea, being ultimately towed home by a paddle steamer.

The film consists of model work—the rocket, and steamer—intercut with scenes with living people made on the studio floor—the professors, the beauty chorus, and moon men.

He must have had a tremendous time in this studio, painting scenery, making props, thinking out new and startling illusions, and rehearsing his buxom show girls and hammy actors. The place was usually a tangle of strings, and not only strings for making objects and men fly but to mark the front limits of the stage so that the players would not come too far forward and so be out of focus or move too far to right and left and so seep over the edges of the photographs.

Though he was not a good business man his affairs prospered at first. He called his productions Star Films and made nearly four hundred pictures besides filling innumerable sketch books with designs for productions. He embarked on topical subjects, such as the notorious Dreyfus affair, splitting it up into six separate films embracing the court martial, Devil's Island and so on. He faked topical events when he could not be on hand to film them; he re-enacted Edward VII's Coronation, a reel which is reported to have occasioned that monarch great amusement when he chanced to see it.

He fell victim to financial sharks in the end, just as dozens of other equally enterprising film makers have fallen into such clutches right throughout the history of the cinema. A convincing talker persuaded him to put up money for the formation of a bigger company—and Melies heard nothing more of it, or his money. Later, when a bona fide promoter wanted quite genuinely to help him establish a sound and flourishing concern, Melies, incensed, rashly showed him the door and the man went away, baffled but still determined to invest in films, and helped establish a rival, Charles Pathé.

Melies carried on for a decade, still doing practically everything himself—writing, scene painting, producing, and even marketing the films himself, but newer methods and better organised concerns were steadily putting him out of business.

When the first World War broke out in 1914, the French

Government commandeered his studio. He had not enough money to remove and store his apparatus or his films, so a sale was held and the makers of patent leather bought his films to recover the celluloid. Except for an odd copy or two, his work of nearly twenty years vanished and Melies himself retired into obscurity.

In 1928 he was discovered selling sweets and tobacco at a kiosk at the Gare Montparnasse. A great fuss was made of him, and he was awarded a decoration and accorded the honour of a banquet, and, with the munificence which seems to be inseparable from the film industry when honouring its pioneers, he was found a place in an Old Folks' Home. He died, after a short illness, ten years later.

His story is paralleled by that of the great British picture pioneer, Robert W. Paul, though Paul died in comfortable circumstances.

Paul was a much more practical man and he retired from films when competition became fierce and once more gave his undivided attention to the business from which he only briefly turned aside, that of a very well established and important scientific instrument factory.

It was this business which was the cause of his entering the film world in those gay, pioneering, carefree days of the late 90's. He established an office at 44, Hatton Garden, London, in 1891 for making electrical and other apparatus. One day, three years later, he was introduced by a friend to two Greeks who had a shop in Old Broad Street, on the fringes of the City, in which they had installed six of Edison's peepshow kinetoscopes which they had bought in New York. They were doing good business with them and wanted some more machines to instal elsewhere. They wanted Paul to duplicate the machines for them.

Paul at first declined, being certain in his own mind that Edison had doubtless applied for patent protection in this country. On going to the Patent Office, however, he found that Edison had not even bothered to apply for provisional protection. Before the end of the year Paul made six kinetoscope machines, but, so great was the demand on the part of travelling showmen that, by the end of 1895, he had made about sixty.

With the backing of some business friends he ran fifteen of the peephole machines at the Earl's Court Exhibition.

People queued up to see the thirty-second show which they presented, and Paul realised that what was really needed was a machine which would show the pictures on a sheet to a large audience in the same way as a magic lantern, but he was already in difficulties

over films. Edison had sent agents to this country to see what was going on and not unnaturally Edison was annoyed to learn that his machine had been duplicated. He had no legal redress, of course, but he could, and did, retaliate ; he cut off all supplies of his kinetoscope films to this country.

As he told me this part of his story, Paul's eyes gleamed with something of the old fire, though he must then have been in his seventies and the events of which he was speaking—we were then on the eve of World War II—had happened more than forty years before. The last time I saw him (he died during World War II) he was working as zestfully as ever. Down in the basement of his opulent, if somewhat Victorian house at Earl's Court, he was even then busy on apparatus, made of three-ply wood, which would, he said, take the place of the artificial lung and which he was making in quantities to meet the demands which it was expected air raid casualties would impose upon hospitals.

"I turned myself into a film producer to keep my customers supplied with pictures," he explained simply. "I got the raw stock for the films from the Blair factory in Foot's Cray in Kent, and I came to an arrangement with my friend, Birt Acres, whereby I supplied the plant and he took care of the processing."

Their first joint effort was a shot of traffic on Blackfriars Bridge but, in their excitement, they forgot to put the lens in the camera and the film was blank. Later efforts, such as *Rough Sea at Dover* and *An Engineer's Smithy* were more successful, and the camera which Paul had built, mainly to Acres' ideas, proved that they were on the right lines. They stopped their film intermittently by a clamping plate which was worked by a cam ; this clamping plate held the film in position behind the lens. A rotating, fan-like shutter was fixed between the film and the lens so synchronised that it cut off the light flowing in through the lens when the clamping plate was released to allow the next frame of film to come down into place.

The films were printed with a gas mantle as the printing light, and the developing was carried out in wooden troughs.

"At first we dried the film in festoons but later we wound it round drums and rotated them. We had nothing to guide us regarding development and so we used our own judgment. We must have been quite successful, for, within a very short time, I was exporting films to America which showmen bought to show on the Edison machines!"

Within twelve months Paul had made a second and much better camera. This had no clamping plate. Instead his films were given their intermittent movement by a Geneva stop movement similar to that used in watches. To show the picture he simply used a similar movement in the projector, the spectator's eyes blending the rapid succession of still pictures into a smoothly flowing picture which apparently moved.

Friese Greene, the Lumière's, and now Paul had banked on this factor in making their pictures take on the appearance of movement ; only Edison had failed to experiment along these lines. Whether or not he was unaware of the properties inherent in persistence of vision it is impossible to say. What is certain is that he pinned his faith in the very fast and *continuously* moving film to try and capture a lifelike representation of movement, and failed.

The film in his kinetoscope camera moved intermittently—it had to pause to take each separate photograph otherwise it would have been blurred, but it never occurred to Edison to run the projector in the same way, and thereby, despite frantic attempts which he made when it was too late, he not only failed to establish his claim to be inventor of the cinema but also missed a fortune notwithstanding that, later, he formed a cartel aimed at forcing all other motion picture apparatus off the market as being infringements of his patents.

The situation was not without its ironic side in the 90's. Friese Greene had invented the moving picture and had gone unrewarded and all but forgotten. Louis Lumière and Paul derived their machines from the kinetoscope in the first place, improving upon it so that it would show pictures on a screen, while Edison himself never achieved satisfactory projection and had to adopt another man's invention, that of C. Francis Jenkins, a clerk in the Patent Office in Washington, in order to keep up with the pace which Lumière and Paul had set.

By a curious coincidence and no pre-arrangement, Paul's first demonstration of his machine, he called it the Theatrograph, was given on the very same day that the Lumière show opened at the Polytechnic. Paul's show, however, was semi-private. It was given at the Finsbury Technical College. A week later he gave another exhibition of it at the Royal Institution.

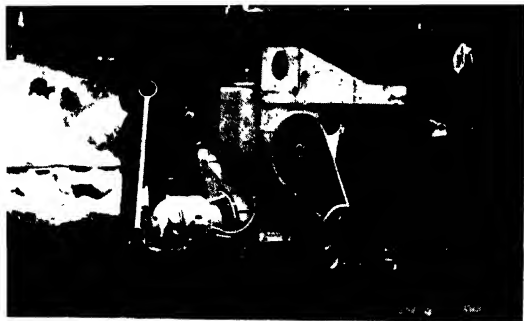
Lady Harris, wife of the famous impresario of Drury Lane was present on the second occasion and was so impressed that she told



(Above) The sound technician, manipulating dials and switches, combines speech and background music from separate films on to one negative as Paul Muni, in *Juarez*, is projected on the screen of the studio's private projection theatre



(Left) An enlarged strip of sound film. The serrated edge is the sound track- the voice of the man before the microphone in a news reel shot. In non-news pictures the sound is recorded in the same manner but the microphone is suspended from a boom which swings above the actor's head and follows him as he moves, but always out of sight of the camera



(Left) A machine which makes snow for Arctic scenes. Its product will not melt under studio lights—it is compounded of salt, for body, and mica chips for glitter

(Right) The actors sit in a section of a car in the studio while an already prepared street scene is back-projected on the semi-transparent cinema screen behind them. The camera, in front, sees the scene as a whole, viz. a couple in a car with a street whizzing away behind them. It means a smoother "road" for the cameraman and no unnaturally curious bystanders lining the kerb to spoil the shot



(Left) The director shoots miles of film. The cutter, with the help of the miniature projecting machine on her right; runs through the strips and selects from the hundreds of shots those which will tell the story clearly, smoothly and with the greatest dramatic effect

(Right) Out on the "lot", on a tree farm, is grown every type of tree to grace sets representing all countries and climes. After its appearance in the studio, each tree is replanted



(Left) No starlet can become famous without publicity. In the studio's own portrait gallery skilled still photographers make the glamour pictures which will grace the pages of magazines and newspapers the world over. They dress the star in the last word in dress creations supplied by the big fashion houses. By carrying the latest fashions into popular favour, the budding star's face becomes familiar to women everywhere

(Right) The art department provides the cards which, photographed, become the title of the film. They fake old deeds on parchment, re-title real book covers to represent an author-hero's best seller, and draw the map which shows the whereabouts of hidden treasure





Mobility of the camera is a piece of filmcraft which is as essential as star and story. Here the camera crane is in action inside the studio on a tricky snow scene of a man on a roof. Basically the camera is carried on a rubber-tyred trolley (or "dolly", as it is called). From its centre springs a steel mast which elevates a girder (or "crane"). The camera moves forward with its "crane" at normal floor level, director and camera operator seated on swivel seats on either hand. At a signal, the "crane" noiselessly rises higher and higher as the "dolly" continues to trundle forward, and so the cinemagoer's gaze effortlessly travels from ground to roof. The microphone, fixed above the crane's girder, rises too, but out of sight of the camera and therefore of the audience. The lining up of a crane shot is usually lengthy and meticulous. The crew attending the "dolly" wear rubber-soled shoes because they must quietly sneak behind the vehicle and keep it fed with the electricity supply lines for both camera motor and microphone which would otherwise drag on the floor. Operation of the crane also calls for painstaking rehearsal ; as the camera nears its objective, the camera operator must constantly alter focus, otherwise the film would be blurred. The slightest jarring would spoil the illusion

her husband it would undoubtedly prove a big draw with the public. Paul received a telegram asking him to breakfast with Harris the following morning. Harris was also managing Olympia at the time; he had seen the Lumière show in Paris and the papers were full of the débüt of the same machine at the Polytechnic. Paul was the answer to Harris's prayers; he had a machine every bit as good and it worked.

As a matter of actual fact, Paul confessed to me that he saw the Lumière pictures at the first opportunity and considered them better than his own because they were steadier and brighter.

Sir Augustus Harris was certain the novelty would fail to draw the public after a few weeks. He did an immediate deal with Paul to put on his show at Olympia.

"I did not think the thing would last very long either", Paul told me, "but I then knew nothing of the entertainment business, of course".

Paul's show opened in a small hall in Olympia and big crowds clamoured to pay their sixpences to see his very limited selection of films.

The Lumière show had now moved on to the Empire Music Hall in Leicester Square. It did not form part of the programme but was exhibited in the smoking lounge as an added attraction. The Alhambra Music Hall, on which the Odeon Cinema in Leicester Square now stands, also wanted a similar show in order to keep abreast of the opposition house. Accordingly Paul was approached to put his pictures on there, but as a definite item in the variety bill. So, only a few yards from where that early and semi-static panorama show, Wylde's Globe, had once stood, Paul put on his pictures.

The Alhambra management renamed the show *The Animatographe*, which seems not at all a bad attempt at rivalling the *cinématographe*. They booked Paul for two weeks and he had to give a ten-minute show of pictures each night, for which he received eleven pounds per performance.

"I was staggered. That was £66 a week for about an hour's work in all. Naturally I was sorry that it was only to be for a fortnight and I started to make arrangements with other music halls. I arranged to do five or six other halls—the Canterbury in Westminster Bridge Road, the Paragon, the West London, the Britannia at Hoxton, as well as one or two others. I did not know then that "the pictures" would nearly drive me off my feet as well as my head, for that

original engagement of a fortnight at the Alhambra stretched out to two unbroken years, night after night, and I had to hire a brougham in order to get round to the other halls to supervise the shows.

"As quickly as I could I trained other people to run the machines. Mostly I chose the limelight men in the music halls. I paid them the hitherto unheard of salary of four pounds a week to project pictures.

"After the show had been running at the Alhambra for a month, Mr. Moul, the manager, suggested that I should make a short comedy in order to put a few laughs into the programme of scenic and interest films I was showing. Accordingly we took some of the theatre scenery up on the roof and built it up in the full glare of the spring sunshine. We also took some of the actors with us. They were playing in a ballet called *Bluebeard*, and when we asked them to volunteer to act for the film they treated it as a joke but readily agreed to co-operate.

"We gave the leading role, that of a soldier, to Fred Storey. Moul directed and I operated the camera. We exposed eighty feet of film and we called it *The Soldier's Courtship*. It was the first acted film, as distinct from a record of actual events, ever made in this country".

The scenery which they hauled to the roof depicted a woodland glade. They used a property park bench and a lamp-post and most of the players appeared as atmosphere—people strolling in the park. A girl arrived at the seat and awaited her sweetheart, the soldier, who, sinking down beside her, engaged her in a prolonged embrace. They were discomfited however by the arrival of a fat woman who unfeelingly occupied the other end of the bench. She gradually started to edge them off the seat, what time she read avidly and consumed buns from a paper bag, until finally she drove them away, but they had their revenge for, when they rose, their end of the bench flew up while her's dumped her on to the ground.

The public seemed to like it, but Paul's next big success was a topical film. A year before, he had taken some films at the races for the peepshow kinetoscopes; he now determined to film the Derby.

Hiring a wagonette, he drove down to Epsom and took up his position near the rails. A gypsy showman, seeing the tall camera and its handle, jumped to the conclusion that it was a rival peepshow and tried to overthrow Paul's wagonette. The police were summoned.

"We were given pretty rough handling; at first the policemen thought it was a fracas between a couple of rival *Punch and Judy*

men, but when I explained matters they were very interested. Sending the gypsy about his business, they helped me tie my vehicle to the rails so that no one could shift it."

The pictures which he obtained were good. The race was won by Persimmon, owned by the then Prince of Wales, who later became King Edward VII.

Paul, in his quiet Earl's Court house, re-lived that moment of the first showing. "The audience went crazy. The win was a popular one with the crowds and when I ran the film the following night they would not let me go. I had to re-wind the film and show it over and over again. They stood on the seats and cheered it every time. Then they sang *God Bless the Prince of Wales*. I remember that some of the artistes on the bill were a little jealous; I felt a little guilty about it myself for I suddenly realised while I was re-winding between one of the many repetitions of the film that, apart from the hire of the wagonette, the picture had only cost me fifteen shillings to make.

"People came to see it night after night and I showed it at the other halls, and I was receiving a pound a minute for showing it every time it went on the screen."

From 1896 onwards things boomed at the Hatton Garden offices. Paul was besieged by customers demanding projectors. One of the first was the self same Melies, the Parisian, who created the early trick films.

Some of Paul's customers were a problem; two Turkish gentlemen came daily, removed their shoes and donned slippers, and spent hours and hours being taught the mystery of the machine. Less patient was a Spaniard who dashed in, bought a machine and dashed out without discovering how to work it. Paul learned later that, back in Barcelona, the audience had been so incensed at the mishandling of the show that they threw knives at the screen and the luckless exhibitor was thrown into jail to serve a term of imprisonment for false pretences.

After Queen Victoria's Diamond Jubilee had been filmed, the public seemed to think that the zenith in topicals had been reached. Interest in the new moving pictures began to decline.

It was then that Paul bethought himself of the success he had had with the little comedy, *The Soldier's Courtship*. A theatre roof, open to the heavens, was not an ideal studio however, so he bought a four-acre field at New Southgate, in North London, and, while a

permanent studio was being built, made films on an open-air stage in an adjoining garden.

A cameraman took pictures of two real divers being lowered into the sea at Portsmouth. On the open-air stage, in diving suits loaned by Siebe, Gorman and Company, two actors floundered about against a backcloth representing wreckage and weeds. They found a treasure chest and had trouble with their oxygen supply, and so on, the whole thing being made to look more realistic by being filmed through an aquarium, containing little fish, which was placed immediately in front of the camera lens.

He also staged and filmed a tremendous railway collision, the trains being toys, and, on a nearby golf links, he faked scenes of the Boer War, including the bombardment of Mafeking.

In 1899 his studio was completed.

It was not called a studio but simply Newton Avenue Works, New Southgate. Its stage measured twenty-eight feet wide and fourteen feet deep and was enclosed by a glass and iron greenhouse. It faced north and its frontage was a pair of sliding doors which, when rolled back, enabled the camera to take in all that went on inside.

So that trick effects, such as trapdoors in the floor, could be manipulated, the edifice was raised about six feet from the ground. The camera, likewise, was on a six feet high platform of its own. This camera platform, in turn, was mounted on wheels which ran on a short length of railway line. By pushing the camera towards the stage, a gradual enlargement of the characters was obtained, or, by pulling it back, they appeared to diminish in size. This was used for trick effects; the camera would be pushed up close and a man photographed on one half of the film, then the lens would be covered, the film wound back to the beginning and then, with the camera pulled right back, other characters were filmed, the resultant composite showing an average size man surrounded by tiny little people. This was the secret of one of Paul's first successes at the studio, *Cheesemites or Lilliputians in a London Restaurant*.

The scenery followed the stage tradition in that it had wings and top borders. Most of the props were painted on the scenery.

"We even painted people on as well. Walter Booth, who was in charge, would, if we wanted to depict an audience in a theatre or a grand-stand at the races, put two or three real people in the front row and paint the rest on the backcloth".

A bridge over the stage enabled actors to be suspended from wires.

They did *A Christmas Carol*, the first Dickens' story ever to be filmed, and manipulated Marley's ghost by wires and double exposure. In *Ora Pro Nobis*, which showed a waif expiring of cold in a snowdrift outside a church, they made an angel descend and gather up the child's "soul" while her dead body still remained where it lay. They were very proud of this one. "We had coloured gelatine in the church windows on the backcloth and put a light behind them to give a fine Christmassy effect".

Many ambitious projects were carried out at the Newton Avenue Works—the Cambridge Instrument Company's factory stands on the site to-day—including coloured films which a Mr. Doubell, lantern slide colourist to the Polytechnic, actually painted by hand, doing only two frames of film per day.

Two or three films a week were made at the Newton Avenue Works, and in them the first regularly employed film actor made his debut, a rotund comedian called Johnny Butt who was paid five shillings per day and who remained in the film business for many years playing comedy roles.

When Paul was not filming he hired the studio to other producers at a guinea a day.

Traditions grew up around the place. The staff would tell of the great time they had when they made *Sweep versus Whitewasher*, in which the first-named threw soot over the latter, who, in turn, threw whitewash over the sweep, a piece of slapstick which hinged on a quarrel and which, because of its obvious clarity when depicted in photography, became one of their biggest successes. They would recall, too, how, when they were shooting a picture near Muswell Hill of an escaped convict in broad arrows who filched the pennies from a blind man's cup the onlookers, unaware that a film was being made, chased the luckless portrayer of the convict all round Alexandra Palace before he made good his escape from them.

The life of the studio was about eleven years. At the end of that time the simple trick films were giving place to more elaborate and expensively mounted dramas and competition was becoming more intense. Paul, who, after all, had only turned film producer in the first place to supply pictures for the peep-show kinetoscopes, found film making becoming too speculative and closed down, henceforth devoting all his attention to his original business of making scientific instruments.

One regrets, however, that one of his cherished projects never

came to fruition. It was nothing less than an arrangement with H. G. Wells, whose novel *The Time Machine* was the talk of the day, to film the book and to show it in specially constructed cinemas in which the seats were to be so moved by a swaying floor as to give the impression of a flight through space and time, a sensation which the protagonist of the story so vividly described in the book. Other effects were to be used—coloured lights and the rushing sound of air released from compression chambers. Wells and Paul took out a patent to protect the idea, but, as Paul told me, with a twinkle in his eye: "We soon realised that we should have to spend thousands of pounds on machinery and a suitable auditorium so it did not get any further than being a project on paper."

Paul had to face competition in the very earliest days. One day, while he was showing the films at Olympia, he was approached by a young man of twenty-three who had just made a new type of arc lamp. Paul, perspiration dewing his forehead, was behind the screen (they always kept the machine hidden from the audience in the early days to add to the mystery, consequently translucent screens were employed) turning the large wheel which was then thought necessary to impart an even movement to the mechanism. Paul told him to call and see him at Hatton Garden, and the young man, whose name was Cecil M. Hepworth, duly called and found the stairs and passages jammed with voluble but resigned people of all nationalities and colours waiting to buy a Paul theatrograph.

Paul bought some of the arc lights, and, encouraged, Hepworth opened a shop in Cecil Court, London, a thoroughfare for foot passengers only which links Charing Cross Road with St. Martin's Lane, and which, because of the many film companies which clustered on either side of the paved passageway became known as Flicker Alley long before Wardour Street, now the centre for London film companies, was known for anything but the secondhand and antique furniture trades.

The shop did no trade, so Hepworth bought a film machine for a pound and several lengths of film from Paul, for five shillings apiece, and, with two hundred lantern slides which he had made himself, he went on tour, taking the new-fangled cinema show into the highways and byways.

He gave a two-hour show and, to eke out the programme, not only lectured on the films before they started but also ran them backwards so that the audience could fully appreciate the marvels of the new

invention.

The fire danger worried him. The film as it came through the machine was not wound up on a spool but fell into a velvet bag. Very often it missed the mouth of the bag and went piling up round the legs of the unsuspecting projectionist. Pieces of white hot carbon dropping from the arc light or a member of the audience throwing down a cigarette-end were both potential sources of danger. Hepworth thereupon devised a take-up spool driven by the projector mechanism.

Later, when he tried his hand at film-making by photographing the Oxford versus Cambridge Boat Race of 1898, he decided that the method of developing films then in vogue—they were wound round things like picture frames (pins sticking out of the edges of the frame kept the film from overlapping) and were then dipped in a flat tray of developer, taken out and washed, put in the fixing solution, then given a final wash—was too slow and cumbersome. He thereupon devised a series of troughs containing the chemical and washing baths, the film running continuously from one to another, the practice which is in use to-day.

For a time he worked with the agents whom Edison had sent to this country to watch his interests, Maguire and Bacus, and who, because their offices were in Warwick Court off Holborn, styled themselves a little later as The Warwick Trading Company and started one of the earliest, if not the first news reels, *The Warwick Journal*.

Hepworth, however, soon got the sack, so with £200 from the royalties on his patent arc, he decided to become a film producer. He went to 'Thames Ditton in search of premises equipped with electric light, but when he drew a blank there, he went on to Walton-on-Thames. There, in Hurst Grove, he found a villa which he was able to rent for £36 a year but without electricity laid on.

"In the tiny scullery", he says, "we installed a vertical gas engine direct coupled to a dynamo. It was as noisy as a pneumatic drill. The automatic developing and printing machine was brought from Warwick Court and set up in the drawing-room. The best bedroom became the drying room, where the films were hung in festoons from wires stretched across it; the other bedroom served a similar purpose. The bathroom was the cutting room and the front sitting room was the office."

The studio itself was a wooden platform measuring ten feet by

sixteen feet which was laid down in the back garden, a couple of uprights being erected to which to lash the scenery. The latter was painted in the kitchen.

His first film did not demand a studio; it was called *Express Trains* and showed three trains roaring through a Surrey cutting. It was fifty feet long and was sold outright to showmen at £1 5s. 0d. per copy.

The first film to be made on the stage was *The Stolen Drink*. It, too, was fifty feet long and boasted but one scene. In another burglary picture, taken a few weeks later, novelty was introduced by having more than one scene and cutting the negative to embrace both the exterior of a house and the interior. Hepworth himself played the burglar and wore a heavy false beard. In the confusion of pulling down one scene and putting up the next he forgot to re-don his beard, so, in the completed film he was shown outside the house with a beard, inside without it, and again outside with it on. "We noticed it, of course", he recalls, "but it never occurred to us that we could do anything about it. We should not have dreamed of going to the trouble of re-shooting."

It was on this tiny stage that Hepworth made his first early success, *Rescued by Rover*, a short picture which was so popular that it sold and sold and sold. It ran for about four minutes on the screen and boasted several scenes. Mrs. Hepworth wrote the story, which told how a gypsy stole a baby from a perambulator in the park while its nurse was flirting with a soldier. The dog, Rover, followed the gypsy to her attic, then returned to the despairing parents and barked at the father of the child until he understood and followed him to the kidnapper's lair. The film finished with a shot of the parents and their child expressing their gratitude to the sagacious dog.

Hepworth played the father, Mrs. Hepworth the mother, the girl who cut the films was the nursemaid and the baby was Mr. and Mrs. Hepworth's own child, while Rover, the dog, was also one of the family. Only two professionals were engaged, for 10s. 6d. each for the day's work, Mr. and Mrs. Sebastian Smith, who played the gypsy and the soldier. The total production cost was just over £7 and Hepworth sold nearly four hundred copies of it at £8 each.

Within three or four years land behind the villa had been acquired. On it a glass roofed studio was erected with a stage a little bigger than that which Georges Melies built behind his house. The Walton studio was equipped with ten open arc lamps for shooting in dull

weather. To-day a sound-proof stage has taken its place but Hepworth no longer rules it, and, though the little villa still stands in Hurst Grove, Hepworth does not live in it.

He built up a big business there. Two little girls, Chrissie White and Alma Taylor, came there to play in a short film about a children's party and remained to become two great stars of the silent era. Hepworth made some of the first big spectacles there, such as Dickens' *Barnaby Rudge*, which had vast crowd scenes depicting the Gordon riots, and one of the biggest hits in the sentimental class—so much in vogue in the silent era—Helen Mathers' *Comin' Through the Rye*. Many famous stars started their careers in that "glass top", as such studios were called, including a youthful Ronald Colman who played second juvenile leads there before leaving to find fame in Hollywood.

Hepworth, however, encountered varying fortunes; American competition grew fiercer and more unfair with the years, unfair because American producers got their money back in their own country several times over before dumping their films here at cut-throat prices, an advantage given them because America, being so vast, boasted four cinemas to every one which our own country could support, a numerical advantage which has told against us throughout the cinema's history. Hepworth withdrew as a producer, but happily continues to work in the film business, taking care of, by one of those many ironical twists with which cinema history is besprinkled, the camera work on the trailers which extol the world-beating stars and productions of other makers, a job to which he brings complete contentment, thanks to his sense of humour and very high technical skill.

Many similar stages sprang up in the halcyon days when films found a ready market at sixpence a foot. Before embracing them, however, it is necessary to take a look at the exhibiting side of the business—a colourful world of fairground showmen, owners of penny gaffs and proprietors of converted shops who made up the world of "the pictures" outside the realms of the other two generally accepted ways of presenting films to the public—the one-night travelling picture show which visited schoolrooms and lecture halls, and the topical and interest films, with perhaps a crude little comedy or drama thrown in, which regaled audiences for ten minutes at the more enterprising music halls.

VII

FAIR GROUNDS, FIRES, AND A FILLIP

IT was within a few months of the first appearance of films at the Polytechnic, Olympia, and West End music halls that one or two enterprising people hit upon the idea of presenting moving pictures on fairgrounds and in converted shops.

A man named Lane made the first attempt at establishing a permanent home for the pictures. By a coincidence he chose Kingston-on-Thames, birthplace of Muybridge of galloping horse picture fame, as its venue. His theatre was an empty shop in Fife Road.

He had met two young men who had bought an early film projector at Coney Island, the big American pleasure resort, and decided to go into partnership with them. None of the three had any clear idea how it worked. Lane, living with his parents, invited his partners to his home to experiment with the projector but, after filling the place with fumes, Lane's mother turned them and their machine out into the garden.

After mastering the machine, they looked round for a suitable hall in which to exhibit the pictures. It was when they were unable to find one that they decided to take an empty shop.

The landlord hesitated a long time before giving his sanction ; he was dubious about the safety of his premises. However, Lane and his friends struck a bargain with him.

So much light came in through the plate glass window that they had to cover it with sheets of brown paper. It gave the place the depressing appearance of being unoccupied. Despite bills announcing the wonders to be seen within, the passers-by went on their way unheeding. After a few days, Lane hired a man to stand outside and, by sheer lung power, try to entice the public in, but even this had no effect.

The public had no idea what a moving picture was ; experimenters had dived into the problem of making pictures move, and, when

the public had had it thrust before them at some other entertainment such as an exhibition or a music hall they enjoyed it when they saw it, but to the non-patrons of such places "a living picture" meant simply nothing at all.

So Lane's show had to close. It was, to use a cliché, before its time.

A picture show in a shop at Islington had a brief spell of prosperity in 1897. It gave a ten-minute performance for an admission charge of twopence and often had queues waiting for the next performance, but when one of the passers-by who noticed this success bethought himself of duplicating it at a pleasure resort and opened a similar show opposite the West Pier at Brighton on Whit Monday of that year, he also encountered the same indifference on the part of the public which had spelt failure for Lane's show at Kingston. After a few days, when the takings had fallen to fifteen shillings a day, he closed down.

On fairgrounds, however, such shows fared much better; here was a public out for enjoyment and willing to take a chance on the mysterious booths and sideshows.

To lure the public in, the showmen built huge and garish frontages to the booths, provided seating for as many as five hundred people, and equipped the places with big £1,000 Chiappi or Gavroli mechanical organs which could be heard hundreds of yards away.

They toured these big auditoriums to all the important fairs—Nottingham Goose Fair, Lynn Mart, to Hull, Swansea, Llanelly, Mitcham and Barnet Fairs, to Birmingham, and the Agricultural Hall at Islington. Many of the shows represented an investment of three or four thousand pounds. Several of the owners later became the proprietors of established chains of permanent cinema halls, men such as Pat Collins, Harry Scard and Richard Dooner.

There were whole families of fairground folk who were financially interested in such shows. Before they bought new films or apparatus a family discussion would be held and one of their number deputed to carry out the transaction on behalf of the rest. They did not bother about such things as accounts and invoices; when they bought they bought with the actual pennies and threepenny pieces which they had collected on their other enterprises, the swings, roundabouts and boxing booths.

Flicker Alley knew them all. There was Mrs. Scott, a fairground woman who came to the Gaumont office there and bought a

projector and films and other items to a total of £200 and paid for the lot with ready cash which she had secreted all over her person as well as in the pockets and purses of her daughters, who accompanied her to see fair play.

Everyone in Cecil Court knew well another fairground show-woman, Sophie Hancock, for her great booming voice could be heard long before she came into sight, while her sunburned and weatherbeaten face was, as one film maker put it, "like a map printed on leather".

After a time it became customary for the early producers to send out travellers with cases of films to the fairgrounds to solicit custom. At Nottingham Goose Fair there were often five or six big film shows and such trips were well worth while.

The travellers would go into the living vans of the leading showmen—John Proctor, George Kemp, Colonel Clark and George Green—and would be invited to participate in the enormous morning and evening meals which fairground people eat (they have no time to stop at mid-day for a meal). There, in the cosy living van, they would bring out their wares and try to do a deal. Sixpence a foot was the recognised price for film in the late 90's. When the showman had made his selection and the bill had been totted up, the traveller would be invited, as likely as not, to collect the fares on the merry-go-rounds or other big shows until he had taken sufficient to cover the amount. Sometimes a traveller would spend a couple of days collecting coppers at the sideshows before he had got his due. Few of them minded; in fact, many of them enjoyed the carefree break in routine, to say nothing of the generous hospitality of their hosts.

One enterprising showman, William Haggart, bought a camera and, using his fairground helpers as the cast, made his own films. Some of these were highly successful. *The Poacher*, two hundred feet in length, was voted a huge success and as his arrangement with the film concern was that they should develop and print the film, supplying him with copies for his own use, in return for which they were at liberty to make prints and sell them to other showmen, they were on a very good thing, often selling as many as five hundred copies at home and abroad.

To attract custom, midgets and "wild men" pranced up and down before the ornate entrances of the booths and gramophones were played as a novelty which vaguely betokened the latest marvel

of science to be seen within. It was not long, however, before the fairground proprietors noticed that their audiences were tiring of topical and news films and were becoming engrossed in the acted dramas and comedies.

In 1906 E. V. Lucas noted that :

"At Barnet Fair this year I noticed that many of the old shows had given place to animated pictures and at the Fete of the Invalides in Paris, a few weeks later, I observed the same development. In both cases the invented story, comic, tragic, pathetic, was the staple ; there were no royal processions, no conferments of the freedom of cities, no military manœuvres. Instead of taking the place of the illustrated papers, as the cinematograph at first did almost exclusively, and still does at the more pretentious halls, it was taking the place of the theatre. And for two very good reasons it was making the real theatrical booths look very foolish—one being that the pictured stories were bright and engrossing, involving the use of only one sense and never straining that (whereas in a stage play in a booth one often fails to hear and sometimes to see at all) ; and the other that the body of the booth was in darkness, a favourable condition for those who attend fairs in couples, whether in England or France."

The fairground cinema only ceased to draw when it was supplanted by permanent shows in the larger towns. Thus it no longer held novelty and the showmen discarded it, though in many cases with reluctance because they had an affection for an entertainment which was so easily transportable.

The towns, however, now had Poole's Myriorama, combination of panorama and picture show, and West's Modern Marvels, Hamilton's Excursions (an early travelogue venture), and many other semi-permanent shows of a like nature.

It was by no means plain sailing for these pioneers. The world had been shocked by a terrible fire at a charity bazaar in Paris on the afternoon of Tuesday, May 4th, 1897, a fire which was attributed to a film show in one corner of the premises.

The cinema, as a form of public entertainment, was then fifteen months old. So terrible was the disaster that the whole world was shocked and the new entertainment all but died before it had properly started.

The bazaar was a survival of more conservative times and was strongly patronised by titled socialites. It was organised by representatives of all the leading charitable societies in France and was an annual event, first started by Marie Antoinette, which gave grants to poor mothers.

It was held in a temporary building near the Champs-Élysées on a piece of waste land facing Baron Rothschild's extensive stables. The fire raged so fiercely that, although nearly a thousand people escaped from the doomed building, some two hundred were burned alive before they could make good their escape.

All Paris mourned. A special memorial service was held at Notre Dame cathedral, the front of the building being draped in black crepe, and the Lord Mayor of London and members of the City Corporation made the journey to Paris to attend.

On every hand condemnation of the cinema was heard ; the cinema was dangerous, the cinema was a menace, and, very soon, it was : " nice people do not go to the cinema, the cinema is unspeakably vulgar ".

Yet the truth was that any fire, however caused, would have had the same death roll, for the conditions prevailing in the building in which it was held simply invited disaster. It was one hundred and fifty feet long and fifty feet wide and was made entirely of well-tarred deal planks. Its entrance was fitted with a double doored compartment, in the centre of which was a turnstile and the whole building was crammed with scenery, flimsy stalls, cotton decorations and other highly combustible materials.

It was completely gutted within twelve minutes of the fire starting. When the Captain of the London Salvage Corps inspected the scene there was nothing to mark the site of the tragedy except a few blackened coins and belt and shoe buckles. Not a single piece of the structure remained. He is reported as saying : " If a fire brigade had been in the street, its hoses already connected to the mains when the fire broke out, it could not have saved the building ".

The organisers had purchased a lot of stage scenery originally intended for a big Theatre and Music Hall Exhibition. It represented a street in seventeenth century Paris, and the fake shops and their hanging signs lined either side of the hall, completely blocking the two emergency exit doors, which were not marked. Down the centre of this scenery street were stalls, a refreshment buffet, games of skill, while, in one corner near the entrance door was a little film show. Overhead the wooden roof was lavishly festooned with cotton drapes and bunting.

The cause of the fire was attributed to the cinema show because the projector light went out and the operator, asking indulgence for a few seconds while he attended to it, started to re-charge the

lamp with ether and struck a match the better to see what he was doing. There was a noise described by those who managed to escape from the fire as being like a squib going off. Immediately a flame shot upwards and caught fire to the decorations, which, in turn, ignited the roof.

What is quite obvious is that it was not the film which first caught fire but that the blaze was caused by the mishandling of the ether, a thing just as likely to happen at a magic lantern show or any other entertainment using a brilliant spotlight.

Dozens of titled people perished, and so did a party of nuns ; young society debutantes attending the stalls were wiped out in a matter of seconds as the hanging flags and novelties fell from the roof setting fire to their flimsy stalls and fake shops.

A profound impression was made by an account of the last moments of the Duchesse d'Alençon, who refused to save herself when urged to make all haste from the building, and who said : " No, let us give the visitors time to get out ". Although burning pitch was falling from the roof and her friend clutched her by the waist and tried to draw her to the exit, she insisted upon playing her self-imposed role to the end. " Do not trouble about me ", she urged. " I shall leave last ".

There was hardly a titled family which was not in mourning following the disaster ; even those who had lost no one went into black, either as a token of sympathy for the bereaved or to give the impression that they, too, were among the upper crust.

Ten days after the fire, the Police had orders to make a list of all film shows and their apparatus—a by no means arduous task in view of the extreme rarity of apparatus in those days—and to clamp down the severest possible fire regulations upon them.

Fire preventing apparatus made its appearance. A popular device was to place a beaker of water between the condenser lens and the film to minimise, as it was thought, the danger of the film catching fire in the gate.

Bubbles would weave their way upwards on the screen when the water neared boiling point. To avoid this happening, a piece of coke on a bent wire was placed in the beaker to collect the offending bubbles.

Another device, in vogue until it was learned that the most ineffectual thing to put on a film fire is water, was an ordinary flushing lavatory cistern. The operator was supposed to pull the

chain if the film caught fire, when a deluge of water would swamp the machine and extinguish the flames.

What really caused the terrible death roll in Paris was panic. If the victims had taken heed of shouted warnings that there were several exits behind the scenery, as well as a big window giving on to a brick-built hotel, many would have lived to see another day. As it was there were indescribable scenes of bodies piled so high near the exit that one woman who escaped found herself, for one panic-stricken moment, wading waist high in a sea of dead and dying human beings before she took a sharp hold of herself and climbed up over the barrier of bodies to safety.

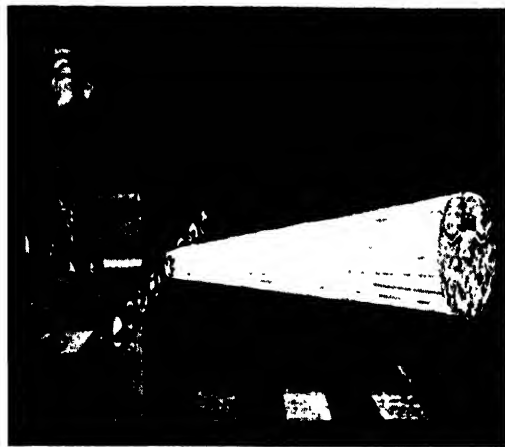
The cinema was to know other disasters, notably the terrible Paisley tragedy on New Year's Eve, 1929, when, in an upstairs cinema hall called "The Glen", a film in the re-winding room started to smoulder and the fumes from it filled the auditorium, throwing the hundreds of children attending a special matinee into such a state of panic that they actually compressed themselves in tight layers against the gates at the bottom of a staircase giving on to the street, a horrible sight which passers-by found themselves powerless to prevent because the folding exit gates were jammed in the closed position. Out of five hundred children present seventy died, and all but two died from asphyxia, not because of the fumes, but due to crushing.

Paisley is in some of the older film companies and among the older generation of film workers a warning and a byword; quite recently I heard a careless visitor to a cutting room who had a cigarette between his lips adjured with: "Would you mind dropping that and putting your foot on it, sir—remember Paisley."

Film fires are rare, fortunately, and panics rarer still, but more deaths have been caused by the latter than the former and the cinema to-day, thanks to first-rate safety devices which prevent more than a few feet of the film taking fire before being extinguished automatically by chemical compounds, is one of the safest forms of entertainment in existence even though the films in ordinary use are, as in the days of the Paris calamity, still made of celluloid, a highly inflammable mixture of camphor and gun-cotton. With everything enclosed in a brick-built projection room, its only contact with the audience being the glass covered portholes through which the projector beam is thrown, portholes which, on the inside, are fitted with iron safety shutters which automatically fall and cover

This strip of film makes clear one of the earliest experiments to create an optical illusion by means of that laziness of our eyes which is known to scientists as "persistence of vision". If we are shown different objects in rapid alternation, our eyes cannot separate them if they are shown at a rate faster than twelve per second. Such is the basis of the movement we think we see on the cinema screen. A modern film shows twenty-four pictures per second but our eyes are too lethargic to distinguish between them and we are deceived into thinking we are seeing one continuous picture in which the objects move. On one circular card Dr. Fitton painted a picture of a birdcage. On another disc, exactly the same size, he painted a bird. Then he glued them back to back with a string sandwiched between. By winding the string and then releasing it, the cards were made to twirl, whereupon the spectator's eyes were deceived into believing that he actually beheld the bird in the cage.

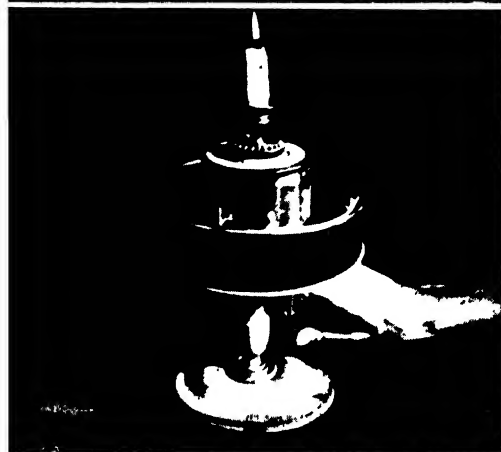




Kircher, a Jesuit priest, invented the *Magia Catoptrica*, or magic lantern, in 1640. An oil lamp, a lens, and a painted slide resulted in a primitive picture, but as there was no condenser lens the resultant image was hazy. Absence of a second lens did not necessitate reversing the slide; today all pictures go through the projector upside down



The *camera obscura* was the forerunner of the film camera, except that the audience was *inside* the camera. A rotating lens in the pinnacle of the roof draws in the landscape outside and projects it on to the white-topped table below, where the spectators watch a replica of life both in miniature and in natural colours

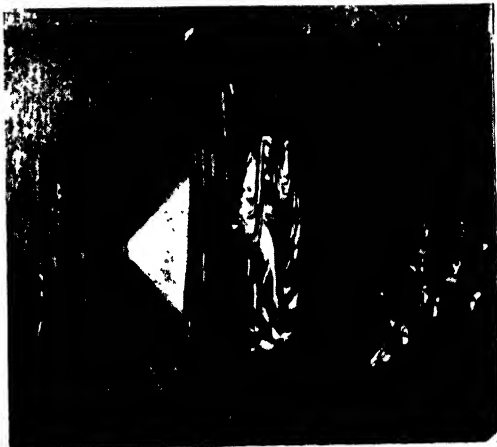


The Zoetrope, or Wheel of Life, was a popular moving picture toy which Desvignes patented in 1860. Here, in an elaborated form, and with a candle as its illuminant, printed bands of figures line the inside of the rotating, open topped drum. Mirrors set at angles in the centre of the plaything reflect the moving bands and split them up into separate glimpses. The spectator thus has the illusion that the figures are actually running and jumping as in life

The shadow show is almost as old as man's first attempts at drawing. A brilliant light illumines the semi-translucent screen. The figures, cut out in silhouette, are articulated and their movements are controlled by threads manipulated from above or by rods worked from below

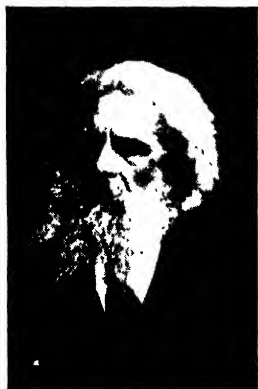


The magic lantern, elaborated, became a popular instrument of entertainment in grandfather's day. Coloured slides, lecturers, and dissolving views (created by placing two lanterns side by side and working a simple device which unmasked a portion of one picture as a corresponding part of the second was obscured) all betokened a growing love for screened pictures

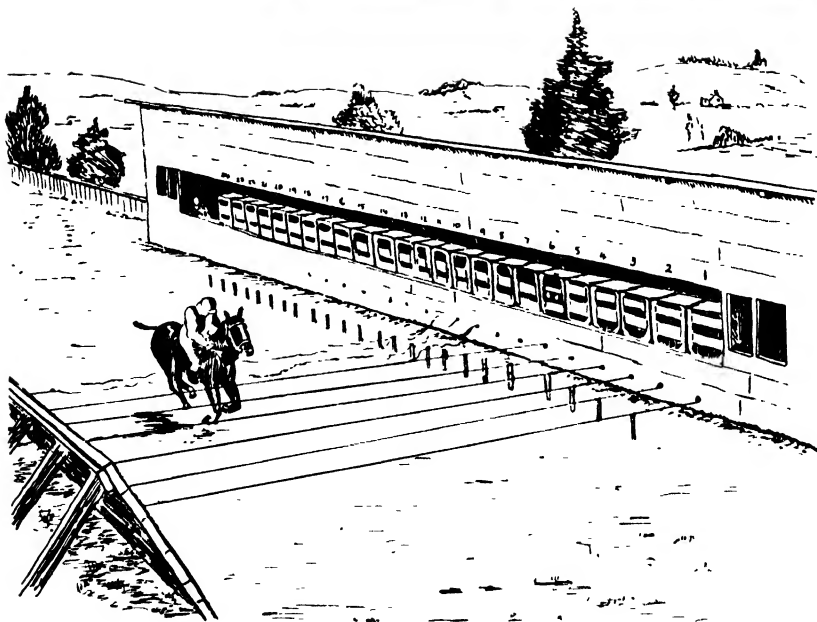
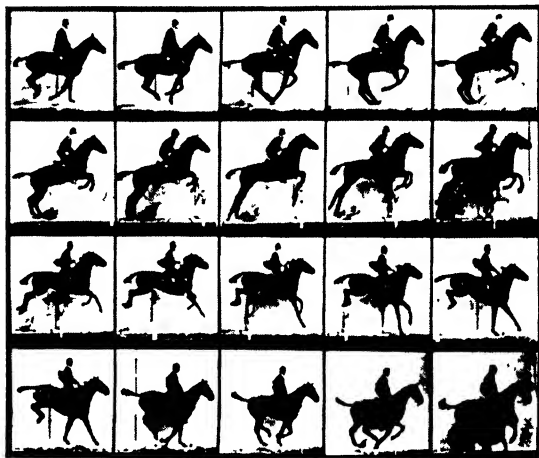


Reynaud's *Praxinoscope*, of 1889, combined the magic lantern, *left*, carrying a slide depicting a static background scene, with moving figures drawn on the bands shown traversing the table's edge. Split into an illusion of movement by the central mirror drum and reflected by the barrel lens, *right*, on to the tilted mirror, *top left*, and thence on to the transparent screen, the audience in the theatre was entertained by a simple moving picture





(Top) Eadweard Muybridge who made a series of photographs of a galloping horse on glass plates to settle a bet. (Centre) One of his later studies in animal locomotion. (Bottom) Muybridge's first and unsuccessful attempt with twenty-four cameras set in a row and a thread to operate the shutter of each stretched across the path of the galloping horse



the little windows in case of fire, the element of risk is negligible, and, in the case of the 16 mm. shows using portable apparatus it is not present at all, for all narrow gauge films are non-inflammable.

Perfect safety measures were not to come for some time, however, and those who tried to turn an honest penny by showing pictures found the going very hard for a long time after the Paris tragedy.

When the shop shows—empty, short-lease emporiums in busy thoroughfares—did establish themselves, they did nothing to enhance the cinema's reputation with people who considered themselves refined. They were murky little places, with vulgar bills outside as well as a man in an ill-fitting and greasy uniform who used a military swagger cane for the dual purpose of chasing away unruly small boys and smacking the display boards to attract attention.

Seating arrangements were elementary in the extreme, usually wooden chairs and forms and sometimes merely empty boxes. The projector was placed in the window, the window itself being obliterated by the bills. At the far end a white oblong was whitewashed on the wall to serve as a screen. Below and to one side of it there was either a piano or, more usually, a barrel organ or mechanical piano.

Performances started when the proprietor considered sufficient people had congregated to make a show worth while. There was no pay box. At the entrance a dingy strip of heavy rep on rings and a pole served to keep the daylight off the screen. Patrons paid just before the show started, a man going round with an empty tin to collect the pennies. No price distinction was made between front and back seats.

In one show at Hackney the shop was so long the projector's feeble beam could not throw the whole distance, and the screen, dipped in water to make it translucent, was mid-way down the premises. The patrons who occupied seats on the same side as the projector paid a penny but those on the far side, who saw the picture reversed, were admitted for a half-penny. As the latter could not read the subtitles, which appeared backwards to them, they would shout to the people on the other side to read them aloud. If, as frequently happened, the people on the "right" side became so absorbed that they forgot to read the titles, a great clamour—and a good deal of bad language—would go up from the "wrong" side. Occasionally they would dispatch a scout round the screen to report, whereupon the doorman would be called, and often a little smart play with his swagger cane would be indulged in.

In Soho there was a small cinema which was actually a stable, the screen being over the manger and the floor nothing more than rough cobbles, while some of the patrons sat in "stalls" which had originally been built for horses.

Eugene Lauste, the man responsible for the invention of the sound-on-film system of talkies in later years, was one of the workers in this primitive cinema.

In Bishopsgate, next to the fire station, was one of the most flourishing of these penny picture gaffs. One of the men who worked there, G. Miller, has given me this account :

"Even back in the late 90's we had films which became big hits just like the films of to-day. We had a Danish film called *The Girl Behind the Counter* which told how a shop assistant was betrayed by a wealthy man who then deserted her. Turned out of her home by her mother, the girl decided to end her troubles by jumping from a bridge. Meanwhile her betrayer had relented. He arrived at the bridge just in time to save her.

"It sounds very trite now, but it was played with zest and our audiences, mostly women street traders from Petticoat Lane, followed every scene with avidity, hissing the rich man, booing the mother, and calling out to the girl as she poised to take the plunge into the river to think again. Many of them cried so loudly over it that the proprietor was nervous in case their sobs drove away the people outside who were waiting to come in, consequently I had to pick out the noisiest tunes on the barrel organ and play them full blast.

"I used to give a running commentary as there were no titles on the film, using the most flamboyant language to make the situations clear to our unsophisticated audiences.

"A film called *The Riot* was very popular with the male section of the audience. It depicted an Irishman entering a tailor's establishment and picking a quarrel with the proprietor over the way in which repairs to his overcoat had been executed. They came to blows, and the tailors who had been sitting cross-legged on the floor listening to the altercation now took sides and a general *melée* ensued. The curious thing was that the audience was so wrapped up in what was happening on the screen that, subconsciously, they would start hitting out and so, very often, we had a real fight on our hands.

"We did so well at The Moving Pictures, as the show was called, that we divided the programme in half and showed three or four films, each about a couple of minutes in length, and then put the lights up, whereupon I would announce that we had some more films but, if the audience wanted to see them, the charge was another penny. Nearly everyone would remain seated and we passed an empty cigar box round to collect the coppers before proceeding with the second half of the show.

"One Saturday night just after collecting the second lot of pennies I went to start up the projector again and found that the films were on fire. Naturally I kept quiet about it ; the authorities did not look on shows like *The Moving Pictures* with a kindly eye and I felt that I dared not go to the fire station next door in case it resulted in our show being closed. As I lived quite near I slipped out and rushed home, leaping up the stairs and calling out to my wife to give me the blanket off our baby's cot as well as his tin bath. Next moment passers-by in Bishopsgate were amazed to see me tearing back to the show with the bath on my head and the blanket in my arms.

"I soon extinguished the fire but our programme was destroyed. I did not feel like returning the money ; besides we simply had to have some more films if we were to carry on, so I slipped out again, called a hansom and drove like mad to Cecil Court to buy another supply. In those days the shops dealing in cinema supplies kept open until nine or ten o'clock at night.

"Armed with a selection of new films, I called another cab and went back to Bishopsgate. It denotes how strong was the lure of the moving pictures in those days when I say that I discovered the audience still patiently waiting for the show to go on.

"I think they all loved our rickety little show. It used to get full of smoke and the atmosphere was far from wholesome after four or five audiences had seen the show, and the racket of the projector, the jangle of the barrel organ and my bellowed commentary would soon have given modern film-goers a headache. Their parents were of sterner stuff, or else they loved the pictures more, for we never had any complaints. In fact, some patrons used, quite voluntarily, to help us run the show. The illuminant entailed a supply of gas from a big bag ; to give the gas pressure someone had to sit on the bag, and we never lacked volunteers to come and sit on the gas bag so that the show could start."

The cinema in general still lacked a name, a name which would entice people in to see its wonders ; animated pictures, living pictures, moving pictures—these were the usual designations. Then, by chance, a showman with a film show in South Main Street in New York opened one day in April, 1902, and put on a programme to which admission was five cents in the afternoons and ten cents in the evenings. He showed Melies' *A Trip to the Moon*, *Gulliver's Travels* and other phantasies, as well as a bull fight picture and views of New York in a snow storm. Posters announced the refined nature of the entertainment and its suitability for ladies and children, but he lacked a name for it. With a sudden flash of inspiration he hit upon the phrase "Electric Theatre".

Actually, beyond the lights outside, there was nothing very

electric about the show, the projector being equipped with limelight and hand turned, but the name held an element of the magical and that was what he needed.

So Thomas L. Talley goes down in motion picture annals as the man who found the first name for the new entertainment. During the decade which followed, the "Electric Theatre" was duplicated a thousandfold, and for years, became the name by which filmgoers came to know their entertainment. In fact, in 1908, one of the earliest British circuits registered its title as Electric Theatres (1908) Limited.

The ever-present fear of fire was to remain for a long time. The London County Council insisted on all projectors being housed in iron boxes at one period, and, so it was said, so small were these compartments that all projectionists were correspondingly small and it was unusual to find an operator who was more than five feet in height.

Some authorities pinned their faith in projection booths painted with fireproof paint. A touring showman who found, at the last minute, that his portable operating box did not comply with this direction and who gave it the necessary coat of paint while wearing his evening dress in readiness for going on the stage, had the mortifying experience of seeing his immaculate clothes turn a repellent shade of orange-brown.

In the provinces regulations were not so strict. For some years at the beginning of the century it was not unusual to find music halls using a projector which was clamped to the rail running round the circle or gallery, and operators had hair-raising stories to tell of discovering, in the dark, that the film was not being taken up by the lower spool but was cascading down into the pit among the audience, many of whom were smoking.

Projectors left a lot to be desired in those days. One lecturer with a travelling cinema show had the disquieting experience of hearing the projector fall to bits, part by part, as he lectured. It was of a cheap make and the parts had been soldered together. The heat from the illuminant did its fell work slowly but methodically, leaving him with nothing but a heap of unattached components before the show was over.

In 1900 came the first attempt at establishing cinemas in large towns as permanent institutions, but not cinemas for showing acted dramas and snippets of comedy, but for showing travel films. The

idea originated with an American fire brigade chief called George C. Hale of Kansas City, U.S.A. In 1900 he came to London with his team and, competing at the Crystal Palace against teams from all over the world, romped home a big winner with all manner of cups and prizes awarded in fire fighting displays. He became something of a heroic figure and his success is said to have prompted him to become a showman.

Whether, while he was in London, he heard of Paul's idea to build small cinema halls mechanically swayed and jolted to give an effect of travel through space and time while a picturisation of Wells's *Time Machine* was projected there is no means of knowing. What is certain is that, on his return to America, he surprisingly turned from fire fighting to cinema ownership with a show called "Hale's Tours," the first of which he opened at the St. Louis Exhibition in 1903. The hall took the form of a railway coach with an observation platform at the far end. A man dressed as a railway official took the fares and, when enough people had been admitted to fill the "car", which held about two hundred "passengers", the lights would be lowered, the floor would start shaking, and a compressed air cylinder would begin to emit the chuffing sound of an engine, while on the screen would appear films taken from the front of a railway engine, the lines speeding towards the beholders, signal posts and telegraph poles flashing by. Bridges were crossed, tunnels penetrated, and rolling country went reeling by, while, all the time, hidden machinery kept the floor thumping up and down to simulate a passage over rail joins.

The bills outside announced: "Hale's Tours. Trains Leave Every Ten Minutes", and then particularised the various itineraries: A Trip Through the Rocky Mountains, The Grandeur of Bonny Scotland, Through Wild Wales, and so on.

The shows were expensive to construct because of the machinery which was needed to lift and lower the floor half an inch every few seconds. Hale, however, opened shows in every big town in America and in London, two of the latter being in Oxford Street and Hammersmith Broadway respectively.

Hale is reputed to have made nearly £100,000 out of the shows, and he certainly appears to have been an astute business man, for he was not averse to selling a show to anyone else who wanted to try their hand at running the trips. There was a snag, however, in that though business boomed while the thing was a novelty, there was a

tendency for attendances to fall off as its newness waned. As one showman said : " It is a one-time stunt. When the audience has had the experience once it is satisfied. The same people do not come back again for another ride ".

One of the early purchasers of such a show from Hale was Adolph Zukor, now head of Paramount, who bought one, found interest waning, and, writing off the capital investment represented by the floor-shaking machinery, turned his little premises into an ordinary cinema hall.

Early cinema show proprietors were still using the short loops of film intended for the kinetoscope peepshow machines put out by Edison as the basis for their programmes, joining several of the strips together to make a film lasting three or four minutes. The longer topicals and travel pictures were their main attractions, together with the little acted snippets, the kinetoscope films helping to make the programme varied.

Edison's part in the development of the cinema has been tremendously over-rated, and there are still many who unthinkingly believe him to have been its inventor.

Edison had a good press agent ; he was built up as The Wizard of Menlo Park, and the impression was created that the world had only got to ask for the gramophone or electric light or moving pictures or wireless and, with a flash of a wand, Edison created them.

In sober fact he was much more of a foreman than an inventor ; he hired men of ability and brains to work for him. If someone suggested that there would be a ready market for a machine which talked or a picture which moved, then Edison would assign two or three men to the job of investigating the various possible approaches to the problem in the hope that they would find a workable one. As often as not their trails crossed those of earlier investigators, and so the original inventors would be invited to sign on the dotted line and allow Edison to share their ideas, hence the Ediswan lamp and Edison Bell phonograph records.

Edison never made a satisfactory film projector. He made a film camera for taking his kinetoscope pictures, a huge, cumbersome instrument which could not be taken out of its studio.

For a long time, possibly knowing that Friese Greene had successfully shown and patented screened pictures in Britain, he never attempted to project pictures at all. His first efforts were entirely towards mounting the pictures in a spiral round a cylinder almost

identical with that of the phonograph cylinder ; he wanted to supply the voice on the phonograph with a visible counterpart. This counterpart was little bigger than a pin's head and had to be viewed through a lens. The sounds from the phonograph were barely human but the pinhead pictures were merely freakish.

His interest in making moving pictures had been aroused by a call from Muybridge. Edison, however, considered that Muybridge had done all that could be done with glass plates and allowed the subject to drop. That was in February, 1886. The following year Edison engaged a young English assistant, William Kennedy Laurie Dickson, whom he put to work on solving the problem of making moving pictures. Progress was slow and not fruitful of any startling results.

On the 3rd of August, 1889, Edison went to the Paris Exhibition and there saw the moving picture device made by Ottomar Anschutz of Lissa in Prussia. This was the Tachyscope. Photographs were arranged in series round the edge of a disc, similar to those in Muybridge's Zoopraxiscope. This wheel was placed in a darkened room having one small aperture in the wall through which each slide could be seen by those standing outside. As each picture passed the window a Geissler tube behind the machine flashed momentarily and the successive pictures were seen by the light of these repeated flashes which gave them an impression of movement.

Three years later, housed in a box and operated on the penny-in-the-slot principle, this machine made its appearance as the Electric Wonder, but that is by the way.

Edison returned home and applied himself to using photographs made on a flexible base, for which he used collodion, in a coin-operated machine. In place of the flashing light, he used a permanently burning lamp and obtained the flashing effect by placing a rotating disc, with a narrow segment cut out of it, between the light and the continuously moving film.

It was to this machine which Edison, after the failure of the phonograph cylinder bearing pinhead pictures, recklessly as it turned out, pinned his faith.

That he could be wrong in his judgments is borne out by a statement which he made about the disc type of gramophone record : "The disc phonograph will never amount to anything". He was equally wrong about the moving picture shown on a screen ; he simply did not think it profitable to allow more than one person at a time to see the show.

Dickson, in his enthusiastic regard for the Wizard of Menlo Park, would seem to have misled the world deliberately in this matter of Edison having invented the cinema. In a booklet which he wrote in 1895 he gives a glowing account of how, when Edison returned from the Paris Exhibition of 1889, he, Dickson, led Edison into a darkened room and there showed him a moving picture on a screen, a picture of Dickson himself, who stepped forward and, raising his hat and smiling, said " Good morning, Mr. Edison, glad to see you back. I hope you are satisfied with the kineto-phonograph." This, it will be seen, was even more than laying claim to the moving picture on a screen, it was also the first talkie, being coupled with the phonograph.

Edison, according to Dickson, expressed himself as delighted. This is all the more remarkable because Edison had been stone deaf since boyhood and could hardly have been aware that the picture spoke. Dickson, however, was given to anticipating events in print ; a year later he published another monograph in which he casually refers to the realism of the stereoscopic moving pictures which they were making, a thing which, from that day to this, has never been satisfactorily achieved in either this country or America.

Edison, however, became embroiled in patent litigation and, only a decade after he was supposed to have approved the screen picture which Dickson claimed to have made to his instructions, he gave sworn testimony on the witness stand to the effect that there was no screened picture made by him or Dickson at the date when he returned from the Paris Exhibition.

Though Edison fought, as we shall see later, a long and bitter legal and commercial war against those whom he accused of usurping his patent rights in moving picture apparatus, he confined this campaign to America. He never fought such battles in England.

Paul was able to duplicate the kinetoscope because Edison had not patented it in this country, which seems remarkable in view of his particularly strong interest in making money from his devices.

When Edison filed application for a patent in the United States on August 24th, 1891, for a moving picture camera, the application was not issued until six years later, and, during those years, his proposals for making moving pictures were known only in the vaguest terms.

This would not be of any great importance were it not for the fact that Edison did not patent the camera in this country and that

Americans who bought moving picture cameras during that six year period did not foresee that, from seemingly out of the blue, they would have a patent thrust under their noses—a patent which had been hidden from their view during the whole of that six year period.

The mystery would seem a little more profound when one learns that contemporary history has it that when Edison filed the application for his patent in 1891, it was suggested to him that he should also secure protection in Britain and France and that, when he was told it would cost about £30 in all, he waved the matter aside with : “ It isn't worth it.”

Such a sum was a trifling one to Edison. Also, a few years later he was to spend a lot of money trying to stop theatres from showing films which were not made under his licence and to try to put half-a-dozen producers out of business because they were using apparatus which he claimed infringed his patents.

One scents a mystery, but, as Edison is dead, one hesitates to suggest motives though to even the most obtuse it would appear that he did not seek to protect his “ invention ” in Britain because he knew that William Friese Greene had forestalled him.

How then is Edison important to the motion picture's story ? On two counts ; he introduced a projection machine, another man's invention which he took under his wing, and, secondly, he started one of the early studios for supplying films both for his kinetoscope peepshows and for screen showing by the invention which he had adopted, thereby opening up the way for the production of the first tremendously popular story films, and thus initiated the epoch of screen entertainment.

The short films made for the kinetoscopes were made at Fort Lee, New Jersey, where Edison caused to be built a studio made of tarred paper and tacks. About thirty feet in length and twelve feet in width, it comprised a compartment to house the huge camera and a light-proof room in which to change the films. At one end was a dead black background before which the players were photographed. Part of the roof was opened up like a flap over the stage so that the sun could pour down on the actors. This arrangement resulted in photographs of brilliantly illuminated people against a dense background, the only way in which a clear-cut picture could be obtained when seen against the light bulb in the peepshow kinetoscopes.

The studio, which the neighbours irreverently nicknamed Edison's

Black Maria, was equipped with four manganese lamps to give added illumination to the players. The whole structure was mounted on a central pivot while castors ran, at the outside edges, on a circular rail; this enabled the studio to be turned round to follow the path of the sun thus making use of the full intensity of its rays throughout the hours of daylight.

The type of action usually photographed was that provided by dancers, wrestlers and jugglers. Occasionally there was an attempt at a snippet of acted drama or comedy; from a New York stage hit Edison hired two forefront stars who were making a sensation with a prolonged kiss which set the whole town talking. Seen to-day the kinetoscope film is merely ludicrous—an unattractively gowned and matronly woman looking foolishly coy while a man with handle-bar moustaches and a three-inch collar slobbers ungracefully in the region of her left ear.

Eugene Sandow, strong man, and Buffalo Bill, Wild West showman, as well as troupes of performing dogs, all strutted their few seconds on the tiny stage. Showmen in Europe were cementing together several of these short strips to make a film which, shown on a screen, comprised several turns. One of the acted pieces was a close shot of one of Edison's assistants, Fred Ott, taking a pinch of snuff and grimacing horribly before delivering himself of a prodigious sneeze.

After a time, Edison embarked on longer ventures so that a battery of the box-like peepshows could each show an episode from one subject, thus enticing the public to pay several pennies in order to see the complete item.

In 1895, James J. Corbett, the famous boxer, was paid a large sum and a share of the profits to appear in a staged boxing match for the forty-foot film strips, one round on each strip, so that the public paid sixpence to see the entire fight. Corbett's opponent was a nonentity who had been hired on the strict understanding that he was to allow himself to be knocked out in the sixth round.

Corbett was confused at having to fight in the confines of the little stage and not in an ordinary size ring. He was also instructed to keep within focus and not to go too far forward or back. After a few seconds of the first round, the cameraman called "Time!" Corbett was baffled; no round was as short as that! The cameraman pointed out, however, that he had photographed enough to fill a forty-foot film strip and that was all that mattered. It then took the cameraman

half an hour to re-load his machine.

As a result, Corbett's opponent came up for each round as fresh as paint. The fight lasted from ten in the morning until four o'clock in the afternoon, the last round being fought to shouted exhortations of "Keep in focus, Corbett. Stand on the chalk mark, Corbett. Knock him out now, Corbett." But Corbett could not knock him out; his nonentity of an opponent was still in top form.

To anguished cries of "Now, now, now!" and the prayers of the cameraman who had only a few feet of his swiftly running film left in the camera, Corbett made a wild lunge and knocked his adversary down for the count just as the last piece of film sped through the gate. Corbett said it was one of the toughest fights he had ever taken on but he reaped a rich reward from his share of the takings.

That anecdote provides an interesting insight into the long-winded and ponderous production methods needed to obtain even a few minutes of film.

Attempts were made to link the phonograph with moving pictures of singers; some were moderately successful although all suffered from the defect that the sounds coming from the cylinder, tinny and distorted, bore little resemblance to the human voice.

Edison made the tardy discovery that successful as were his kinetoscopes the public were flocking in ever-increasing numbers to see pictures projected on a screen; he must then have realised that he had been all at sea in his surmise that a dozen machines would amply satisfy this demand for screen entertainment in the United States. He cast round for a suitable projector and into his orbit came Thomas Armat, a man with a machine.

Showmen had been looking to Edison to make a machine. Was not the Wizard of Menlo Park the genius who turned out all the big discoveries and inventions of the age? Some even deferred buying other machines, preferring to wait to see what Edison would provide. He answered their demands by placing on the market a projector which bore the trade plate "Thomas A. Edison—Armat Design."

As a matter of hard fact, the machine had been designed by C. Francis Jenkins who sold his rights in it to a co-inventor, Thomas Armat, with whom he had been associated and who had contributed several improvements. Jenkins received about £300 for his interest in it, and was awarded a medal by a learned society. The two inventors later came to loggerheads over which of them had contributed most to the device; Armat seems to have come off best

because he transferred his rights to Edison for a considerable sum.

Thus briefly does C. Francis Jenkins, young Treasury Department clerk at Washington, D.C., impinge upon these pages. According to the legends which have grown up round his name, this youthful shorthand writer to the United States Government created his invention in his spare time, working in the bedroom of his boarding house. Fellow guests said that he surprised them by bringing a young dancer from the variety stage and posing her in the back garden before his new-fangled camera and that he paid her five dollars to pirouette and curtsey.

There is evidence that he and Armat showed their machine publicly at the Cotton States Exhibition in Atlanta, Georgia, in September, 1895, and that it failed to interest the public. The picture was, apparently, very unsteady. Nearby, in the exhibition, was a battery of Edison kinetoscopes, which likewise failed to gain very much public attention. The link between Armat and Edison would appear to have germinated that September, for, by the following April, the Edison machine, Armat Design, made an inauspicious debut before a small, selected audience, in the workshops alongside the Black Maria at West Orange, New Jersey.

The night was bitterly cold and the little audience huddled round the stove to see projected on a screen a picture of a dancing girl made for the kinetoscope peephole machine and the film which Robert W. Paul of Hatton Garden had taken of the Derby.

This, then, was Edison's contribution to the "invention of the cinema".

That his part in subsequent moving picture history is important cannot be denied. To the present race of film-goers it is not without interest to point out that all films in use in the ordinary cinemas all over the world still conform in width to the original kinetoscope loops; opposite each frame of the film are four small perforations or sixty-four little holes down either side of each foot of film. Edison designed these punched holes for his kinetoscope; toothed wheels engaged in the holes and drew the film smoothly and rapidly past the peephole lens. They had no other purpose. Yet, to-day, because early showmen showed the Edison kinetoscope loops on their film projectors for throwing pictures on a screen, the Edison gauge of 35 mm. and the four small perforations opposite each frame of film are still standard practice. One perforation, as on the 16 mm. and 9.5 mm. films used by film societies and amateurs, would suffice to

draw the film through the intermittent movement, but the industry has never been able to make the break because of the tremendous expense which would be involved. Producers would welcome a wider film ; it would give more room for the sound track which is now squashed between the perforations on one hand and the edge of the photographs (a crowding in, which took place when films began to talk and which reduced the size of the picture from a broad rectangle to a square) and it would make work on the negative, such as retouching or the printing of super-imposed trick effects, easier, but there is little hope that this will ever come about. In Britain and America alone of the world's cinemas there are nearly fifty thousand film projectors ; all of these would be practically worthless if wider film came into vogue ; similarly, all developing and printing equipment, to the value of hundreds of thousands of pounds, is made to take film of 35 mm. width and no other, and all this would also have to go into the discard, to say nothing of millions of spools, tins and other accessories. It would mean starting all over again as far as equipment is concerned and the expense would cripple the industry, for it goes even further than the machines which make the projectors and printing machines—it would mean scrapping the machines which make the machines.

The other and more important legacy from Edison's introduction of the Armat Design " Vitascope ", as the machine was called, is the facilities which he gave at West Orange to make short films which told a story. Edison, it is obvious, had little interest in the screen at that time. His business associates, however, realised that European inventors had got a head start, and that if they were to make progress they must, quite rapidly, put into production films which would hold their own with the British and French article.

Accordingly, after a year or two spent in turning out the simple pictures of children at play, bootblacks at work, high seas, and mischievous boys with garden hoses which were the early staple diet of the film shows, they turned to simple pieces of staged action.

One blasé cinema attendant of early days once said :

" We always showed the same sort of pictures ; there was one about a masher and a girl—the girl screamed for help and a policeman and hundreds of other people all joined in the chase. It cropped up regularly every few months, and there was one about a boy who got a saucepan fixed on his head and went about colliding with shop windows and lamp posts and knocking everyone down, whereupon everyone chased *him*. No matter what sort of film it was, there was

always a chase, but the main thing was that someone was always getting knocked down by other people or fell through manhole covers in the road. Sometimes the effects were semi-magical—a runaway pumpkin or a bed which darted out into the street, but the chase element and the knocking down routine remained supreme in practically every picture we showed."

In 1896, just as the kinetoscope was developing from peepshow to screenshow, a young American mechanic called Edwin S. Porter, walked into the New Orange plant and asked for a job at the Black Maria. He was a useful and strong young man, but he left after a few months to go on tour with a rival projector, billing himself as "Thomas Edison, Junior". Next he returned to Edison and started a career which culminated some seventeen years later in one of Mary Pickford's greatest successes, *Tess of the Storm Country*. Its start, however, was inauspicious; in the routine course of his duties he filmed the turn out of a horse fire engine, another hoary standby of the early film programmes.

The manager of the Edison film plant, Arthur S. White, had been a member of a volunteer fire brigade as a youth. His duties at the studio included casting and fixing up "locations"; he therefore arranged with his old firefighting colleagues at Chelsea, Massachusetts, to turn out for Porter's film.

Porter liked the short length of film very much indeed and determined to build up on it and to make it into a little story. As White had figured on the fire engine, he naturally asked White to play the leading role. White, who had to keep production costs low and not hire more actors than was strictly necessary, agreed with some little reluctance.

Melies' films were then all the rage and Porter noticed with particular interest how the French producer cut his pictures to tell a connected story. He determined to try the same thing. With his fire brigade turn-out as the basis he made the grandiloquently titled film *The Life of an American Fireman*, which was by no means the long biographical feature its name implies but a total of two hundred and fifty feet of film telling an incident in a fire brigade chief's duties.

The film opened with the fire chief asleep in the station. In his dream, denoted by a superimposed "balloon", he saw a woman and child in danger of being burned alive. The ringing of the fire alarm awakened him and the fire engine turned out to answer the call. This brought in the shots Porter had on hand. At the burning building, the fire chief realises this is his dream coming true;

inside, the woman and child are in danger. He rushes in and rescues the woman and then returns for the child, the film ending with mother and child clasped in each other's arms.

In all there were seven scenes, three of them interiors—the chief's room, the men's bunk-house and the blazing bedroom—and one close-up, that of the fire alarm being pulled. The remaining shots were of the fire engine leaving the station, rushing through the streets and the outside of the blazing house, which was an old wooden fronted building used for fire practices.

Porter and his associates were very pleased with this effort. The public liked it, too ; it was exciting and it built up to a climax and, above all, it had holding action. To the mechanic Porter, who had no theatrical background, the thing was fascinating. He had stumbled on something new—the use of moving pictures in place of words to tell a story.

More than eighteen months were to pass before Porter made another story film. This time he tried something even more ambitious, *The Great Train Robbery*, which turned out to be the first story film which registered a tremendous success all over America, Britain and the central European countries, the film which laid the foundations of several of the biggest film undertakings the world has known.

The title was not original ; it was shamelessly cribbed from a highly successful melodrama then touring the theatres.

Porter had been assigned to make *Uncle Tom's Cabin* and he hurried it through to concentrate on *The Great Train Robbery*. With only one thousand feet of film in which to tell the lengthy book, Porter took the line of least resistance and photographed a series of tableaux and inserted brief captions announcing each new situation in the story. It was nothing more than a lantern lecture ; *The Great Train Robbery*, however, was to be his real work of art, though shorter than *Uncle Tom's Cabin* by two or three hundred feet.

He filmed it at Paterson, New Jersey, mainly in a park. For the train scenes, his friend White, the studio manager, hired a length of railway line and a train from the Lackawanna Railroad.

Thousands of people have probably seen the film within the past few years ; it is not only revived periodically by countless film societies—it has been reprinted on 16 mm. film—but has also been revived in the ordinary cinemas in the guise of " screen memories " and similar short subjects.

It tells how bandits hold up a lonely signalman in his cabin and order him to stop the train which they wish to rob. Leaving him bound, they then jump on the train and command the driver to proceed. Meanwhile other members of the gang enter a van and shoot the guard in order to rob a strong box. The train is then halted and the thieves proceed to rob all the passengers, shooting one who refuses to give up his valuables.

Suspense comes in the guise of the signalman's daughter who, finding her father trussed up, frees him and then rushes to a nearby barn dance and interrupts the merry-makers with her tidings. The sheriff calls his men and they ride in search of the bandits, surprising them in a wood where they are engrossed in apportioning out the proceeds of the robbery. There is some exchange of shots, and one of the bandits is killed, before justice is finally triumphant.

The fourteen scenes were taken in mid shot or long shot and there was no movement on the part of the camera or the cutting of one shot into another to give point or contrast, factors which Porter developed later and which were adopted by a young actor called D. W. Griffith, to whom Porter gave a part in another film and who later made his début as a director.

The leading role, that of the robber, in *The Great Train Robbery* was played by an actor from a music hall on New York's 14th Street, George Barnes. Frank Hanaway played the signalman ; he, too, was a professional actor, and one of the subsidiary robbers was played by an actor who called asking for a job, a man called Max Aronson who played cowboys on the stage but who was not at all at home in the saddle in private life. He was, in fact, very nervous of the animal assigned to him by Porter and did not appear on the first day because his animal had thrown him on the way to the park in Paterson, New Jersey. He made his début, quite inexplicably, in the later scenes of the film showing the passengers being held up and in the wood where the robbers divide out the booty. His appearance is noteworthy only because, in a year or so, Max Aronson had become so enamoured of the cinematograph he had abandoned the stage for the screen and was on the high road to becoming world famous as G. M. Anderson, or, to give him the name by which every youngster knew him because it figured in the titles of practically all his films, Broncho Billy.

Porter went on to make other films—*The Great Bank Robbery*, *The Ex-Convict*, *The Kleptomaniacs* and others, and in these he not

(Right) Louis Le Prince of Leeds patented the first moving picture camera. His still unsolved disappearance while on a visit to France stultified his patent, but examination of it, years later, showed that the camera was incapable of giving a completely satisfactory result. (Below) William Friese Greene, the true inventor of the cinema. He is depicted on a glass plate moving picture which he made of himself. Shown, in numbered order, in a lantern equipped with a shutter, he appeared to awaken and smile at the audience





(Left) The poster announcing the first public film show in London of Lumiere's *Cinematographe* at the Polytechnic, Regent Street, on February 20th, 1896. (Below) The machine which was used



(Below) *Baby at the Lunch Table* was one of the films shown. It depicted Auguste and Madame Lumiere and their baby and had been photographed a year prior to the Regent Street show





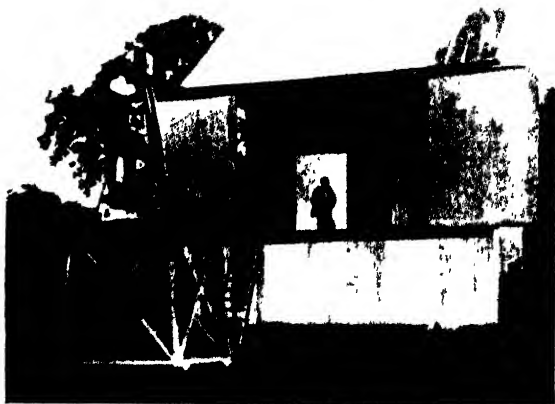
(Above) *Arrival of a Train at Ciotat Station* was another subject presented at the first film show. The oncoming locomotive was almost too realistic for timid patrons, who moved apprehensively towards the exits. In another one-minute attraction (Below) *Workers Leaving Factory Gates*, the Lumieres' own factory at Lyons was depicted





(Left) Robert W. Paul, scientific instrument maker of Hatton Garden, London, who projected moving pictures, semi-privately, only a day after the Lumiere show. He built Britain's first film studio at New Southgate in North London

(Right) His little stage was equipped, like that of a theatre, with wings, flies and trapdoors



(Left) A glass roof admitted daylight, and the camera was mounted on a wheeled platform running on a length of railway track facing the open doors of the studio

only developed film technique by editing his material so that he obtained his effects, such as by showing action parallel in time, but he also developed a strong social motif in most of them. In *The Kleptomaniacs* a poor woman and a rich one were arraigned for shoplifting ; Porter developed the theme along the lines of there is one law for the rich and another for the poor, while, in *The Ex-Convict*, he moralised on the heartlessness of those who will not give an under-dog the chance to atone to society, contrasting the hardness of the ex-convict's lot with that of the wealthy factory owner who refuses to give him work and the opportunity to rehabilitate himself.

Crude in both photography and their moralising, both films had the same vigour as *The Great Train Robbery*, with the added advantage that their grip on their audiences came not from the excitement of mere rapid movement but from the human problems which they propounded, the solution of which was almost as, if indeed not more, thrilling than the simple "race to the rescue".

Here were the beginnings of cinema as a means not only of entertainment but of arousing thought. Griffith was to profit greatly from the foundations which Porter laid down, building up a great edifice which culminated in later years in *Judith of Bethulia*, *The Birth of a Nation* and *Intolerance*. And Griffith was to profit in a double sense ; not only had Porter laid down the fundamentals of film technique but in *The Great Train Robbery* he had made a film so successful that it established the film industry. Without screens on which to show their work, Griffith, and all the other gifted creative workers in the cinema, never would have had a medium through which to express themselves.

Edwin S. Porter, whose name is known to perhaps one in ten thousand film-goers and whose work has received practically no acknowledgment, has every claim to be acknowledged as the "father of the films".

VIII

NURSERY DAYS

WITH the success of the early Melies, Paul and Edison films, film production very soon became a highly flourishing business.

Until the first World War made film production in Britain an impossibility, Britain was making films and supplying them to countries all over the world, and one of its best customers was America.

Production facilities and story ideas were primitive in the early days of the century.

Cricks and Martin, one of the earliest film-producing concerns, whose trade mark of a lion's head was familiar long before the days of M.G.M., started making pictures on a piece of waste ground beside the Swan Brewery in London's Fulham. Perhaps inspired by the proximity of the brewery, their first production was called *Drink and Repentance*. When business began to flourish they moved into a house which adjoined the railway station in London Road, Mitcham, where they had twenty-five acres of ground and a stretch of the River Wandle, a river which crept into most of their scripts. Contemporary accounts speak of villagers hired by the day to take part in the films, and of journalists, wanting to probe the mysteries of film production, being taken from London by pony and chaise to visit the studio.

The studio, however, was nothing more than an open air platform. A high wind would snatch the coverings from a dying child's cradle and the sun might burst into beaming dancing motes in a coal mine, but no one seemed to mind.

The difficulties of adequately lighting scenes were almost insurmountable in the early days of cinematography. The film emulsions were not nearly as fast as their modern counterparts and, because sixteen pictures had to be taken every second, there was little latitude for increasing exposure, therefore the strongest possible illuminant, the sun, was used to light everything.

A refinement came into vogue in later years—the stretching of muslin over the stage to diffuse the light evenly to make interior scenes look as though they had actually been shot indoors. The use of reflectors also became universal, they were four-foot-square boards painted with aluminium, gold or white paint, the different colours being used by the cameraman to get different tonal effects, gold to light the hair of a blonde, or silver to harden the lines in the face of an old woman, and white as a general all-over “killer” of shadows.

Cricks and Martin also had another way of overcoming the deficiencies of poor light. They took the pictures at a much slower rate than sixteen per second, which naturally obliged the actors to act at about half their normal speed.

Leaving the luxuries of the big house at Mitcham, Cricks and Martin moved into a shed-like structure, situated in Waddon New Road, Croydon, Surrey. It consisted of a bare white-washed room with a glass roof. At one end was a ladder leading to a projection box, at the opposite end was a screen. Pictures were filmed on the floor and the rush prints were projected down the length of the studio on to the end wall.

At the back of the premises, skirted by a public footpath was an open air stage which accommodated sets when the weather was fine, sets which were too large to be built inside the studio. Passers-by, peering through holes in the fence, could see the actors playing their roles, the scenery being tied to two uprights at the back of the platform.

Nearby, in Clarendon Road, Croydon, was another of these early companies, Clarendon Films, though here the open air stage was bigger, being eighty feet square, and it also boasted a system of electric lighting which boosted up the sunlight on dull days. Clarendon turned out a film every week and made a big hit with a comedy called *Off for the Holidays*, and moved into a studio—actually a large corrugated iron structure with a glass roof—in Limes Road, Selhurst. Its entrance was a cobbled cul-de-sac where milkmen washed their prams, yet, in this studio, they turned out films which were pronounced quite good—Harrison Ainsworth's *Old St. Paul's*, in which there was some excellent model work, and dramas in which Haydn Coffin played the menace and Lionelle Howard the hero.

Mainstay of Clarendon productions, however, was Lieutenant Rose; for a long period it was the practice of film companies to centre their action dramas round a dashing Naval hero. British and

Colonial Films probably started the vogue with Lieutenant Daring. The actual identity of these players was not divulged and their names appear to have passed into obscurity.

To visualise film production in the early days of the present century one must conjure up a mental picture of the dashing Lieutenant Rose enacting his heroic roles in the corrugated iron and glass studio at the end of the little alley where milk carts were washed, the hot summer sun making the studio a miniature inferno of glass-house heat. Production facilities were meagre, dressing rooms were mere cubby holes, the art of make up reduced to its simplest terms—Number five grease paint for the face and a shading of green on the eyelids. So poor was the photography (due to inefficient film rather than inefficient cameramen) that characters always wore the same clothes so that the audience could identify them from shot to shot—the heroine in a picture hat, the villain in loud checks, the cheeky schoolboy in the eternal Eton suit, and the old mother perpetually adorned in bonnet and shawl.

Neither was film production always confined to London and its environs in those days. In Norfolk Row, Sheffield, one of Robert W. Paul's assistants, Frank S. Mottershaw blossomed out as a producer in his own right. Being on the borders of Derbyshire he found this ideal for location scenes. His first film, *A Daylight Burglary*, for which he employed actors from local music halls at ten shillings for a day's work, was so successful that he sold five hundred copies in a few days and eventually disposed of the negative in America.

Five hundred copies sold outright may seem of no great weight in view of to-day's widespread releases, but the fact is indicative of the position which Britain held in the world film market several decades ago, noteworthy in view of the more recent revival of world interest in British pictures.

With the success of *A Daylight Burglary*, Mottershaw made *The Life of Charles Peace*, which, it was proudly proclaimed, was actually shot at the actual places of the notorious protean burglar-cum-murderer's crimes. No censor would pass the picture to-day, for, although it is now a museum piece and its horrors border on the farcical, indicative of the fact that fashions in acting change from decade to decade, it ends with a full-scale depiction of Peace's execution.

If we smile at Vincent Crummles to-day, doubtless Crummles himself laughed at the actors of the generation which preceded his,

and who shall not say that our descendants will not find our glamour girls as quaint as our family album pictures of grandmother as a girl ? It is a saddening thought, but one must recognise its validity if one is not to write off everything achieved by past film producers as being inconsequent.

There was nothing inconsequent, for example, about the productions of the Barker Motion Picture Company which used to inhabit a glass topped studio a few yards from the present Ealing Studios at Ealing Green in West London.

Presiding driving force of the studio was Will Barker, still happily among us.

At the age of ten he was trundling a manufacturer's barrow in the City of London for half a crown a week ; by the time he was sixteen he was a fully fledged commercial traveller. Though his wage, up to the time he was twenty-five was never more than eighteen shillings a week, he managed to save one hundred pounds, put into the Post Office Savings Bank a few coppers at a time. With this capital he went into business but retired from it when he was forty. Having always been a keen amateur photographer and fascinated by the possibilities of making nature films and news pictures, he joined the ranks of the first film producers.

His production methods were direct and to the point. He hired Mr. Ginett, of circus fame in 1906, and made a film called *Dick Turpin* in which Mr. Ginett's mare, Black Bess, was given wide advertisement on the posters.

Very soon the Ealing premises were a hive of film-making activity. The studio was a brick and glass structure and the grounds of the suburban house, West Lodge, in which it was situated, did duty for every kind of exterior scene, from jungles in the shrubbery to village weddings in the drive.

Actors would find themselves working for as many as four producers in one day, changing their make-up a dozen times and playing in dozens of scenes all seemingly unrelated but which fitted into half a dozen films ; in the space of a few hours an actor would find himself playing a spy, a doctor, an Indian fakir and a detective. However risky the scene, no actor would have thought of employing a double, although, when a player had to portray a fireman and carry the heroine from a blazing house, Barker would concede a fortnight's drill at the local fire station.

The inside of the house also did duty as scenery, while its exterior

was always being re-dressed to represent a prison governor's residence or an Indian frontier station.

One of his first ventures was an ambitious production of *Hamlet*, which Barker made in one day with the exception of a shot of Ophelia floating down the river on a raft. To obviate the tragedy taking too long to shoot, the whole of its twenty-two scenes were built one inside another, carpenters and scene painters having been employed for two or three weeks in advance preparing them. Thus, when the first scene had been enacted, it was only necessary to pull down the scenery for the second scene to be revealed, already in position.

The only bit of casting that received forethought was the role of Hamlet. Barker sought out a man who knew the part, and that was that. For the rest, post-cards were sent out to everyone who had ever sought work with the new concern, asking them to turn up at Ealing at 8.30 a.m. on the appointed day. Those who had stipulated that they wanted more than ten shillings were not written to.

At 8.30 precisely, Will Barker mounted a chair and proceeded to cast the picture. Noticing a tall man, he announced: "You're tall enough—you can play the Ghost. Now, can any lady swim?" One woman said, modestly, that she could swim a little. "All right," said Barker, "you can play Ophelia." All the other characters were chosen in the same way.

Before ten o'clock the company was made-up and costumed and ready to act. As soon as one scene was finished the set was run off the stage, and so on to the next scene, without a stop until one o'clock, when the entire company knocked off for twenty minutes for coffee and bread and cheese. The next stop was at four o'clock in the afternoon, not for tea, but because the filming was finished and the company had been paid off.

A studio similar to that of Barker's was founded at Hove by a chemist named Williamson. He supplied the ever-growing band of amateur photographers with plates and papers and had a small chain of such businesses before taking premises close to the railway line between Brighton and Hove. It later became the home of Kinemacolor, the first successful colour film system, and that name can still be seen in four feet high letters on the wall beside the railway.

Williamson started by taking topical pictures, the Grand National race of 1898 and Queen Victoria's Diamond Jubilee, before turning to acted dramas. The small glass-roofed studio turned out countless one reel dramas and comedies. The producer had a predilection for

villain's of the old school, and so it was no uncommon sight in the fashionable squares of Hove to see an immaculate, spiked moustached "heavy", equipped with monocle and long cigarette holder, riding in an open carriage drawn by a pair of spanking bays, a camera recording his progress from a vantage point on the back of a laundry van.

Williamson, who later became the founder of one of the biggest printing plants to the rapidly growing cinema industry, almost stumbled upon star appeal in his pictures. In common with all other producers in the early 1900's, the film and its story were looked upon as the only things that mattered—first the mere novelty of the picture moving and secondly and lastly, its dramatic content. No producer then considered that the public was interested in the identity of the players. Their names were never mentioned on the bills and did not appear on the screen.

An ex-Sergeant Major, named Chart, was hired by Williamson to play the leading roles in *Still Worthy of the Name* and *Raised From the Ranks*, and the physique of the hero—he had been a gymnasium instructor—caused a flutter among audiences when his films were shown.

One of the reviewers to the then immature film trade wrote :

"His picture on the screen made so profound an impression on certain fair members of the audience at a picture hall in London that a general desire was evinced for his photograph. Would it not be worth while to issue post cards bearing the features of the gallant soldier for disposal among the audience at a penny each? Pretty heroines are even commoner than handsome heroes in film subjects, and there is no reason why their portraits should not be prized any less than those of actresses whom one has seen in the flesh. Has a new method of drawing audiences been discovered ?

It had, but nothing was done about it. If business began to fall off in the little murky electric theatres—theatres which were redolent of the mixed odours of shag and the heavily-scented disinfectant which the doorman periodically sprayed over the heads of the audience—the accepted thing was to present patrons with a cup of tea and a biscuit with the management's compliments. It occurred to no one that audiences could be lured in by announcing that a particular actor or actress was featured in one of the films.

Few of the early producers survived the first World War as makers of films. One name which has persisted, however, is that of Gaumont, perpetuated in the Gaumont Studios at Shepherd's Bush and in the

Gaumont British circuit of theatres.

The company has seen many changes of control since the early days when a young man named A. C. Bromhead opened a small office in Flicker Alley off Charing Cross Road, hard by the establishment which Cecil M. Hepworth had opened, and became the British agent for films made by Leon Gaumont in France.

After marketing one of the early glass plate moving picture devices, Leon Gaumont, who started his career as an assistant to M. Eiffel, builder of the Eiffel Tower, founded a large business in France in cinematograph apparatus and films. Bromhead, who had had experience of moving pictures in the fairground shows, became his agent for Great Britain and, by 1903, had started producing films under the Gaumont trade mark in this country. The studio was an open air platform in a corner of Fellow's Cricket Field at Dulwich.

Production followed the same happy-go-lucky style set by all other studios at this time. One of the earliest films was *Curfew Shall Not Ring To-night* and everyone connected with the little concern lent a hand either acting, painting scenery, or turning the camera. It was not uncommon for Bromhead himself to play in the films. For the *Curfew* film, a presentable set of a belfry was erected. The star was a lady of ample proportions who played her role with such gusto that, when it came to the climax and she was required to leap upon the clappers of the bells to prevent them ringing, and so dooming her sweetheart to die, the impact was too much for the scenery and the whole of the belfry collapsed.

They were carefree days at Denmark Hill. Between scenes of *Romeo and Juliet* the cast, waiting for the sun to appear, would put the cricket field to its proper use and indulge in a scratch cricket match.

The equipment of the open air platform was so elementary that at one time it showed in the assets of the company as worth one shilling on a balance sheet which also showed a trading profit of one thousand two hundred per cent.

Production, however, was not always on such a haphazard plan—or want of plan. With the boom in electric theatres the Gaumont company made the first hesitant steps towards advertising personalities of some fame in their pictures—music hall star Herbert Darnley in *Napoleon and the English Sailor*, Cooper Willis in *The Mystery of Edwin Drood*, and Dr. Walford Bodie, famous as a medico who cured by electricity, in a film displaying his talents, while Adolphe Becke played in an exposé of his wrongs called *The Martyr-*

dom of Adolphe Becke. George R. Sims, popular journalist and originator of countless poems of *The Fireman's Wedding* type, was commissioned by the thriving company to write an original story for the screen, *Lady Letmere's Jewellery*, probably the first time a writer of repute was so engaged.

In the first decade of this century it was still the practice for producers to devise their own stories. Often they bought residue posters from touring theatrical companies and made films to fit them. A few notes on an old envelope sufficed as script.

Sometimes they bought a story outline from a writer, but the pay, usually ten shillings, or even less, was so miserable that it attracted only amateurs. The copyright laws did not at that time embrace reproduction by means of the cinematograph, which had not been thought of when the act was framed, so that film producers found themselves at liberty to adapt any well-known stories by popular authors which took their fancy. In many instances they took the characters created by different authors and put them into one story, thus a film would present Sherlock Holmes pitted against Raffles, or David Copperfield making love to Becky Sharpe.

From the Gaumont open air stage grew one of Britain's most important studios, that at Lime Grove, Shepherd's Bush, London. At first a 'glass top' studio, in which countless big hits of the early silent era were made, including the famous *Ultus* series of thrillers, it became between the two World Wars, a huge structure, its stages one above the other, soundproofed and admirably equipped, and was the scene of some of Alfred Hitchcock's early successes.

Its progress was probably due to the fact that the Gaumont concern was one of the first to break away from the system of selling films outright to exhibitors at sixpence per foot. When proprietors of film shows were few and literally far between, the outright sale system worked greatly to the producer's benefit. Then, as more film shows sprang up, a market in secondhand films developed; next there came into vogue a system whereby two or three "shop show" proprietors would get together, buy a programme each and, after its popularity had begun to wane in their district, exchange it with one of the other showmen who, in turn, would hand over his programme of pictures to the first man, and so on. A showman thus got two or three changes of programme for the price of one set of films.

Middlemen also came into the scheme of things; they would buy quantities of films from the producers and supply them to the show-

men at an inclusive charge for a set period, then replace them with a fresh set at the same charge—a charge which was always lower than the sixpence per foot for outright sale.

The producers naturally looked upon this with growing alarm. Already the proprietors of the converted shops were haggling for a reduction in the standard price of sixpence per foot for new films. They disliked, also, paying for lettering matter at this rate; they considered that the only thing worth buying was the pictures, not the explanatory captions or titles. When they visited the Flicker Alley offices of the film producers and sat through a programme of new pictures, they would vent their displeasure at long drawn out kisses by stamping their feet in unison and chanting, "Sixpence a foot! Sixpence a foot!"

From all this grew the present system of distributing films, the producers either hiring their pictures direct to the theatres or handing over their distribution exclusively to a second party now known as the renter or distributor.

Accordingly, one Monday morning in November, 1908, the Gaumont Company invited leading exhibitors to attend the very first Trade Show ever held. The film companies still hold Trade Shows but very few exhibitors attend them. In 1908, however, the theatre proprietors had to seek their own bargains instead of employing professional trade viewers to report back to them.

It was not uncommon for the proprietors of the first film concerns to turn the handle of the projector—there were no machines driven by electric motors then—and, at the same time, keep up a running commentary about the wares they were selling, or jot down details of deals with their free hand.

Within a year or two, the marketing of films took on a new angle. Big subjects, or so they were considered then, were shown in West End theatres to an invited audience and, at the end of the show, an auctioneer would stand up in the orchestra pit and ask for bids for the film for certain territories. The highest bidder in each case then became, virtually, the owner of the rights in it for that district.

Naturally, he made as big a profit out of the film as he could. The producers received large lump sums of ready cash, which was what they needed, and were saved the bother of organising the machinery necessary for film distribution. Film makers, however, soon came to the conclusion that, as the other man was making a profit out of the territories, it would be wiser to set up branch offices in all the big

centres and market their pictures themselves.

To the layman there is usually something obscure about the way the films he sees reach the screen. If his local cinema is one belonging to a circuit then he may assume that the viewer for the circuit sees the latest films and his employers conclude a deal with the renters or distributors to show it at a certain number of their halls. The independent hall, run by a "small man", relies on a viewer who sees all the new films for scores of similar "little men", and who tells them whether or not a picture is suitable for their audiences. The film companies employ salesmen who call on the theatres; if a viewer has reported favourably on a particular film, then the proprietor of the hall signs a contract to play it at a certain date.

The film is paid for on a percentage basis. About forty per cent of the takings for the week's run go back to the film distributors as their share; if the film is particularly popular they may raise the price to fifty per cent.

The rest of the programme is usually paid for at a flat rate—so much for the second feature and a pound or two for a short interest subject or cartoon. The news reel is subscribed for on a long term basis—a year's supply changed twice weekly.

The film industry is a hardheaded one when it comes to conducting its affairs. To check on the 'little man' to see that he is not misrepresenting his week's takings and so reducing the distributor's "cut", the theatres pay a small sum to someone in the locality where their films are playing to go to the theatre when it opens on Monday and buy one ticket of each denomination, and to visit the same hall on the Saturday night just before the box office closes and buy another set. By simple arithmetical deduction it is easy to tell how many tickets at each price have been sold during the week, for the tickets are always numbered progressively, the ticket issuing machines being supervised by the Commissioners of Inland Revenue so that there can be no evasion of Entertainments Duty.

Sunday night programmes come under a different category. Sunday night is looked upon as the exhibitor's benefit night. There is no percentage to be paid; he books the films as cheaply as he can and makes as big a profit as he can. From his point of view the only flies in the ointment are the higher wages which he has to pay his staff for the two Sunday night performances, and the contribution—fixed by the local authority—which he has to hand over to charity.

In the film trade itself controversy is always raging about the

position of the circuit halls ; the exhibitor with one hall is at a disadvantage when it comes to fixing up a deal to show a film in face of a circuit man who can offer the distributors a nice fat contract to show the film first in anything up to two or three hundred halls.

Technically, the small man is supposed to get a fair deal and to be at no disadvantage because the law lays it down that no contract to show a film can be entered into until it has been trade shown and, so that every man interested in acquiring it shall have just as good a chance of seeing it and booking it, seven day's notice of the Trade Show must be given in the trade papers ; all of which looks good on paper but which means practically nothing in practice. What guarantee has the little man that the circuit booker, armed with the power he wields, does not see the film "on the quiet" before the Trade Show and gets his deal for it pencilled in ?

A good independent exhibitor prides himself, however, on being a better showman than his opposite number on the circuits ; the manager of a circuit hall is a figure-head appointed by head office. He obeys orders, shows the films which are booked for him, and is occasionally rewarded with a small prize if he does any special "exploitation" or advertising in connection with the film.

The circuit theatre manager is, so it has been said, unable to sack a page boy without referring to the head office. The independent "little man", on the other hand, is lord of all he surveys even if he does have to keep up a battle royal to get good pictures week after week, and, to his credit, he often beats the bigger fish by putting on pictures which, because of his discretionary on-the-spot powers and his long personal knowledge of his patrons' likes and dislikes, are often more to the liking of his audience than are his rivals' programmes.

All this is a far cry from that day in 1908 when Gaumont's held their first trade show ; even the title of the film has been lost in the sands of time.

They were bustling days even if pay for film companies' staffs was low and working hours long. There was a spirit of adventure in the selling of films then which has now been ironed out by trustification and the intervention of business men from other fields, although there are still traces of the pioneer days to be found in some of the business methods employed.

In America many of the first film-distributing concerns stemmed from the ladies' garment trade. Immigrants who knew the gown

trade joined in the early film gold rush and brought with them methods which were quite unknown in the realms of the theatre ; these vendors of films handled screen entertainment just as they had handled ladies' clothes. The comedies and dramas were called "the product"; batches of new films were delivered by the primitive studios and were assembled into groups just as the garment trade assembled its spring, summer, autumn and winter "lines". To-day, in the film trade newspapers, the latest batch of films for trade show by a distributor is referred to as a "line up", and, just as the shop-keeper who wanted some especial tit-bit of ladies' finery had to take a quantity of garments not so alluring, so the block-booking system of films grew up. If the cinema owner wanted the films of a highly popular comedian or *ingénue* star, he also had to take a lot of routine footage which the distributor was having difficulty in selling—a system which, again illegal according to the strict letter of the law, is slow in dying.

The trade mark still persists. Its ancestor was the tab in the pocket of the coat. One would be astounded if a stage play opened with a man on the stage striking a gong and proclaiming, "C. B. Cochran Production", or a lion roaring on a pedestal bearing the information : "Prince Littler Presents".

The veneration which American film chiefs exact from their staffs also bears a family resemblance to the thralldom in which the owners of tailoring sweat shops used to hold their employees in New York's East Side. This would-be all-powerful omnipotence, with its concomitants of bowing and scraping and its "God bless the boss" servility, is still strong in American sections of the industry—it gave rise to the amusing stories of the yes-men who surrounded the film chiefs—but it is dying fast as British films, sold independently on their merits, and made by men who are not hypnotised by the big money they make into thinking they are more important in the sight of the Lord than other men, are fast ousting the American film from its place of supremacy.

That, however, is not to belittle the initial achievements of the American film makers, many of whom brought a drive and vigour to our early screen entertainment which our own films lacked.

In the one and two reel period of the development of the American film one finds a striving for a dynamic entertainment form not apparent in Britain's slower and more domestically conceived pictures.

We made films with the lantern lecture, penny reading and music hall audiences in mind. America made pictures as a new form of entertainment for millions of illiterate immigrants who knew nothing of the homely entertainments of Victorian village halls.

The Americans, then, started with few inhibitions ; at first they bought our films and films made in France, Germany, Sweden, Italy and Denmark because they were cheap and because they were pictures which moved, which was all that the early audiences demanded, but as soon as they discovered that the cowboy was a fine romantic adventurer of legend to their audiences—no matter if the little immigrant came from the remotest mid-European village, he had heard of the cowboy and worshipped the cowboy idea, the idea of carefree adventure, riding the plains and fighting the Indians—and realised that cowboys, Indians, and plains were all ready to hand, they ground out their own pictures.

The untutored and unlettered immigrant also had another adventure-romance fixation in his mind—Whitechapel, a name which conjured up a labyrinthian underworld of crime. Our producers did not realise it in time—*Sherlock Holmes and the Whitechapel Murders* and *The Great Whitechapel Robbery* would have been readily acceptable. The legend of Jack the Ripper was, no doubt, responsible for Whitechapel's undeserved notoriety as the home of all crime, violence, vice and adventure and though Continental film distributors placed the name Whitechapel in front of every title on our more melodramatic films, the practice did not extend to America, thus the cowboy won the day.

Before the cowboy, however, came the sad story and the slapstick comedy, the wild animal story and the religious theme.

The sentimental stories came mostly from Vitagraph, at Flatbush, Brooklyn and from the American Biograph Company, whose studio was a stone's throw from Broadway.

Prime mover in the Vitagraph concern was a young English journalist, J. Stuart Blackton, who had lived in the United States since the age of twelve. By turns, he had been a carpenter, a variety artist and a newspaper man. Calling on Edison in search of a story, and being shown the fifty-foot film, *Black Diamond Express*, which was a picture showing a train approaching the camera, his imagination had been captured by the possibilities of the cinema.

With two friends, Albert E. Smith and "Pop" Rock, and a capital of £150, he started a film company with one camera and one pro-

jector. They evolved a hotch-potch entertainment, half films and half conjuring tricks—Smith was a conjuror and ventriloquist—and began touring the music halls.

They were successful at first, then, because of the severe handling which their apparatus was subjected to on tour, they found public interest declining. What was needed, they reasoned, was better films and promptly set about producing them.

Their first popular success was *The Spanish Flag Pulled Down*. The Spanish-American war had just broken out and with pictures of some soldiers lying in bushes and firing rifles, probably authentic shots and some footage which they prepared of a Spanish flag at the top of a mast being pulled down by a resolute hand, they found they had contrived a film which, coming on a surge of patriotic feeling, did boom business.

Ambitiously, they embarked on a picture which was to tell a story, for like their counterparts in Britain and France, they realised that the public was more interested now in narrative than in the mere novelty of the moving picture. Their office was a small room on the top floor of 140, Nassau Street, New York. Like Paul in Leicester Square, they climbed out on to the roof to make their film, a hundred foot picture introducing a ghost trick effect which they called *The Haunted House*.

The camera was housed in a dark shed on the roof, a shed which was mounted at one end of a framework of pivoted girders. At the other extremity of the girders was a platform on which the scene was erected. Like Edison's Black Maria, the roof top stage was pushed around to follow the path of the sun and so secure direct and powerful lighting right throughout the daylight hours.

The wind which blew across the roof of the high building proved to be a menace. Sometimes pieces of scenery would be blown away and would crash on the heads of passers-by in the streets below. Smoke from nearby chimney stacks was another problem, and an insoluble one. When it came there was nothing for it but to stop filming. Sometimes it came in the middle of a shot, whereupon the director, Blackton, would yell: "Hold it!" and the actors would freeze into rigidity, like statuary, until the danger to photography had passed, when Blackton would call: "Action!" These two phrases were to pass into the jargon of film making; they remain there to this day.

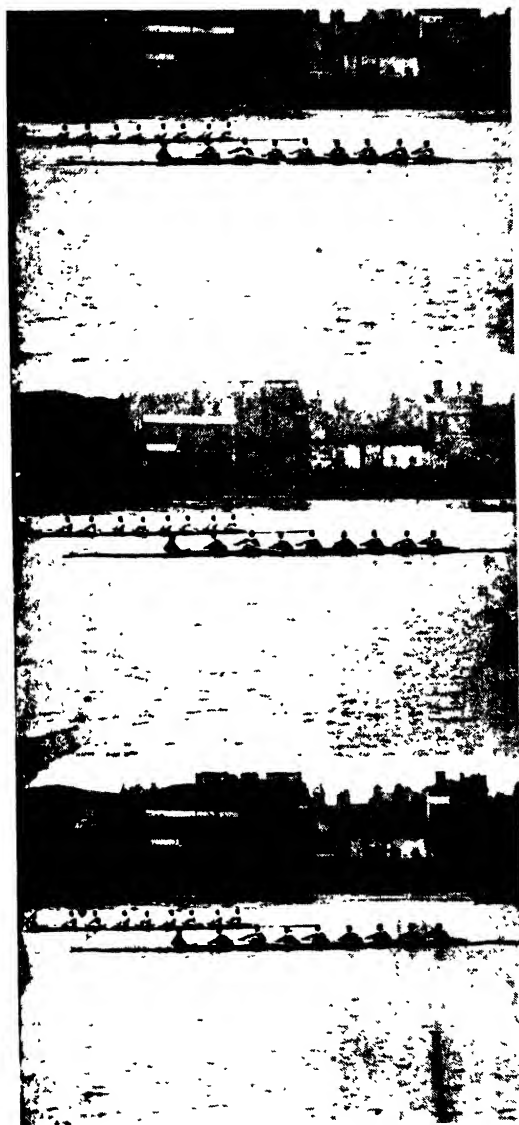
Soon the roof-top gave place to the Brooklyn "glass top" studio,

and with its acquisition, came the coining of the name " Vitagraph " (half of which remains on the short Vitaphone films—in later years Warners acquired the studio, and with it the name, and used it in their early talkie experiments).

How low was the status of a player in those days can be realised from the following facts : all players were regarded as workpeople rather than artists and were required to help with the preparation of the films as well as acting in them. Florence Lawrence, the Vitagraph star, was required to look after the wardrobe as well as act, and to spend her time between acting in sewing, altering and renovating costumes. Maurice Costello, early male star of Vitagraph, after a short period of acquiescence, was lauded by all other film actors because he downed his scene painter's brush and carpenter's saw and proclaimed that he was willing and ready to act but that he would not be a stage hand. His popularity with the public, although he was not known to them by name, was so high that the Vitagraph Company had to concede the point and he thus released the screen player's art from its servile state.

From the Vitagraph studio were to come not only tear-jerking stories but some not impossibly bad domestic dramas and at least two series of comedies which were to capture the public's affections. Even to-day older filmgoers talk of the happy memories conjured up by the names of Mr. and Mrs. Sidney Drew, a couple who, playing their real life roles of a happily married couple on the screen, provided a delightful brand of middle-class domesticity which, because of its characterisation and the reality of its situations, was well in advance of contemporary comedy work.

On a broader plane was the work of John Bunny and Flora Finch. The last named was an English actress who specialised in old maid roles ; with her horse-like face and scraggy neck, she was the very opposite of Bunny, who was rotund and jovial. Even judged by to-day's standards, their characterisations were by no means bad although they suffered from being always the same. Bunny, in particular, was an actor of no mean ability and took the cinema seriously. Unlike most actors of the time, who only worked in pictures for the sake of the pay, money which tided them over until they were able to obtain theatrical engagements, Bunny voluntarily forewent the stage and a salary of £40 a week to start again on the films at a quarter of his salary because he felt that his ability and appearances were better suited to the motion picture medium, a



An early news reel. The strip, reproduced actual size, is from a film of the Oxford *v.* Cambridge University Boat Race of 1898. The shot was taken, from a point immediately opposite Putney Pier, by The British Bioscope Company. The film had no perforations to engage with sprocket wheels but was shown by means of eccentric rollers which squeezed each photograph in turn into the space behind the projector's lens

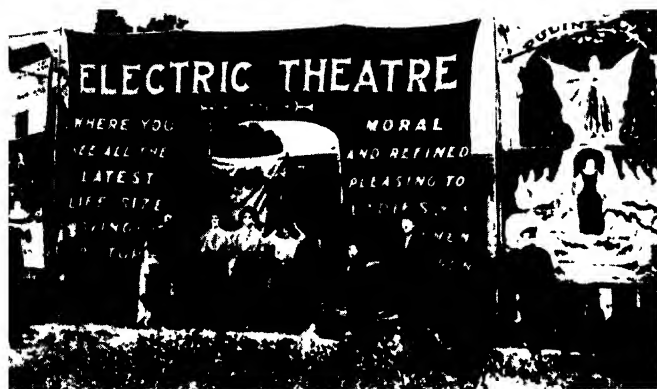


Thomas A. Edison, in 1906, with a phonograph equipped with large horn. Placed behind the screen, it was hoped to make audiences believe that the actors were speaking



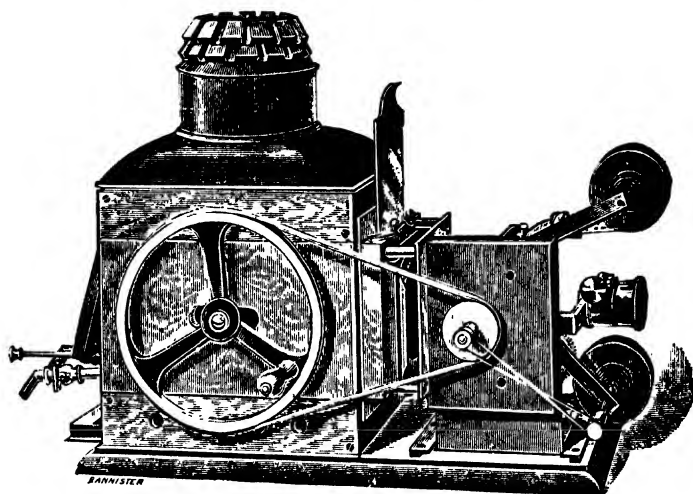
(Above) Edison's "Black Maria" studio at Fort Lee, New Jersey, where films for the kinetoscope peep shows were made. Turning on a central pivot, its extremities mounted on wheels, it rotated to follow the sun's path throughout the day (Below) Inside the "Black Maria". The actors are posed against a dark tunnel. Sunlight is admitted through the open roof. The camera (right) is linked with an Edison phonograph sound recorder (left), but coupling the phonograph cylinders with films failed because sound could not then be amplified





(Above) A typical "penny gaff" on a British fairground

(Below) The "mangle-wheel" type of projector used on fairgrounds



(Below) A much more elaborate type of fairground cinema booth which became very well known in England (See page 112)



belief that was fully borne out by events for he became one of the most popular comedians on the screen.

The Vitagraph Company was always urban in its outlook ; its sentimental stories were the stories of the city streets and tenements, with only brief excursions to countries other than America. Its comedies, too, came from the school of domesticity and the white-collar workers' home, and it seems probable that, in its early years at least, the company was not looking much beyond the realms of greater New York for its audiences.

On a more adventurous scale were the " Zoo " pictures which " Colonel " William N. Selig, founder of the Selig Polyscope company made popular in the dawn years of the nickleodeons.

He came to films by way of the touring nigger minstrel show—the invasion by the clothing trade into the cinema domain had not yet begun—and his military title was purely a stage one. The Edison kinetoscope captured his fancy, and, in a tiny workshop in Peck Court, Chicago, with the aid of a mechanic, he evolved his Polyscope, as he called it, for showing films.

His first films were interest subjects filmed in Chicago. He early found a valuable patron in Phillip Armour the tinned meat ' king '.

Armour, annoyed at the searchlight which Upton Sinclair's novel, "The Jungle" had turned on the butchery of the Chicago stockyards needed some form of propaganda to refute the implications of the book. He engaged Selig to film the stockyards ; it appears that " in order to improve the light for photography ", the stockyards were scrupulously whitewashed before filming and their appearance on the screen seems to have been eminently satisfactory to Selig's patron.

Whether or not it was the sight of the animals in the stockyards which gave Selig the idea we shall probably never know, but after the success of the slaughterhouse film he started to make films round the beasts of the jungle. They became famous as Selig " Zoo " Pictures and had a great vogue.

His first venture was made at a studio which he opened in Irving Park, Chicago. He wanted to send a cameraman on an African big game expedition which President Theodore Roosevelt was undertaking. When, at the last moment, permission was refused, he staged his own big game hunt, using a music-hall actor who did imitations of Roosevelt on the stage to play the lead. He bought a lion for £100, hired some " natives " to accompany the studio safari and made *Hunting Big Game in Africa*. Its highlight was the actor who looked

like Roosevelt shooting the lion. Selig waited for news that Roosevelt had shot a lion and then promptly released his picture.

The public, perhaps excusably, jumped to the conclusion that the film had been made on the Roosevelt hunting trip. Roosevelt was reported as being annoyed about it, but, for Selig, it carried his film career a stage further.

Buying up wild beasts that were past their prime, he started making jungle adventure stories. In the long shots a dog sewn into a wild beast's skin did duty for the wild beast itself. When it came to close ups, the set was built inside a cage, the bars disguised with palms and creepers. The camera took in the scene from between the bars in the front of the compound. The lions and tigers were given sedatives to make them docile. The actors were recruited from Wild West shows and circuses. In time, the *Zoo* pictures became so popular that, when Selig moved from Chicago to Hollywood, he threw open his menagerie to the public and his spacious Zoo in Mission Road, Los Angeles, became a resort for Sunday afternoon pleasure seekers.

Before the *Zoo* came into existence, Selig is accredited with having made the first picture ever filmed in California—not Hollywood be it noted. It was *The Count of Monte Cristo* and the interiors were filmed in the Chicago studio, the exteriors at Venice, on the Californian coast, Selig using the convenient but amazing expedient of one cast for the interiors and an entirely different one for the exteriors. The claims to have made the 'first film in Hollywood' are legion. Selig had a studio of sorts at the back of a Chinese laundry in Olive Street, Los Angeles and there is a record of a film made there, *The Heart of a Race Track Tout*, starring Thomas Santchi. Other claims as to the founding of Hollywood are dealt with later; perhaps the real significance of Selig's entry into the film business is that he was the first to introduce the serial—*The Adventures of Kathlyn*—his feminine star was Kathlyn Williams—and that he was the first to recognise the importance of the story.

He made a huge success with a twelve reel version of Rex Beach's story, *The Spoilers*. Beach wanted three thousand dollars for the screen rights; Selig, aghast, offered him twenty five per cent of his profits from the film. To Selig's surprise, Beach accepted and, in the first twelve months of the film's release, he was rewarded with more than thirty-five thousand dollars. From then on, Selig realised the importance of stories to films and started buying film rights in novels.

At the time of writing he is eighty years of age, and no longer produces *Zoo* or any other films, but sits in a large office surrounded by hundreds and hundreds of MSS., and books in which he holds the film rights and now carries on a vigorous and thriving business with a newer generation of film makers in the film rights of the stories they need. At one time, Selig even thought it possible that he, and he alone, could acquire the film rights in every story printed and every play produced, but found the field was somewhat larger than he had at first imagined.

Religious themes played a large part in early film production. The reason was two-fold. When production methods were haphazard and stories were difficult to follow, it was felt that religious stories, familiar to everyone through religious instruction, would be easy of assimilation. Secondly, the early cinema shows, being housed in amusement arcades and converted shops and railway arches were looked upon by respectable folk as being murky, undesirable places; the cinema therefore strove for a measure of respectability by using the Biblical story favourably to impress the ruling class, which, otherwise, might clamp down on them and close the shows.

In America the early vogue of the cinema was much stronger than in Britain. It was not uncommon for shows in congested city thoroughfares to change their programmes once daily—some even changed twice a day. The poor people, housed in shocking conditions and wanting to escape their miseries, found the cheap picture show, with its admission of a few cents, a welcome anodyne.

One of the earliest religious films, purporting to be authentic but actually faked on the roof of the Great Central Palace, New York, was the Oberammergau *Passion Play*. This "mystic passion play" attracted thousands of people and earned the plaudits of the clergy.

The first big attempt by America, (although Italy had already made several short religious subjects such as *Judith and Holophernes*), was *From The Manger to The Cross*, which, despite its age, does not date overmuch and is still shown to-day.

From The Manger to The Cross was important in that it not only reconstructed the life of Christ but was shot on the actual scenes of the story.

Only the cinema and television can take a true story and re-enact it on the spot, a form of re-creative reportage of which little has been made, although success, all the way from *The Life of Charles Peace*, *From The Manger to The Cross*, down to the story of Arnhem—

Theirs Is The Glory—have always been popular because they have carried not only authenticity of location but authenticity of atmosphere. One wonders why the cinema has not devoted itself much more seriously to shooting on actual locations rather than dismissing the matter as too difficult because of sound recording problems.

A loft in New York was the original studio of the Kalem company which made, much against its will let it be said, this seemingly undying religious drama. Its director was a young Canadian named Sidney Olcott. He had made a one reel version of *Ben Hur* and there had been trouble with the author over copyright. Olcott determined that his next important film should be copyright free and would far outdistance the modest sixteen scenes in which he had shot *Ben Hur*.

In 1910 he came to Ireland and made stories of the Irish Rebels of 1790. Turning out seventeen of them in eighteen weeks, he found himself again in bad grace over *Ireland Oppressed*, a subject so controversial it almost brought about international complications. Alarmed at the trouble which always seemed to dog their young director, Kalem suggested that he should leave Ireland and seek inspiration on the Continent.

He covered fifteen countries in two years. Folk tales and travelogues were his main output, but he still had at the back of his mind an idea for a picture which would outdistance *Ben Hur*.

At this time there was plenty of trouble brewing in New York over patent rights in the cameras, a fact which accounts for "Colonel" Selig having taken to the California coast and the Kalem director wandering over Europe—they were keeping away from writ servers.

At length Olcott came to Jerusalem and realised that here was the scene of the great story which he wanted to put on celluloid. Throwing caution to the winds he started on the first reel of his *Life of Christ*, using a young boy to play in the scenes of Christ's boyhood ; then he came to London in search of an actor to play the role of Christ grown to manhood.

One April day Henderson Bland, soldier, actor and poet, received a call to go to Blackmore's Theatrical Agency. He there met the blond, bluff Canadian film director Olcott and was offered the role of Christ in the film.

It was a role which no actor could resist—and one which no actor could accept without serious thought. Bland accepted it but made the stipulation that he was to play the role without direction. Olcott could drill his other characters, and in fact did so, but Bland always

remained apart until the camera was ready to start turning, and would then go on and enact his role.

This had the attribute of making Bland seem not only apart from everyone else in the film but it also extended to the way in which the other members of the cast regarded him, leaving him to his own devices, never smoking in his presence, or even talking in loud voices. The latter may seem like nonsense from the film and stage worker's point of view but it was important later because of the accusations of irreligiousness on the part of its producers which the film evoked.

On the actual venues, Olcott made the remaining four episodes of his ambitious five reel venture—"The Miracles", "The Last Supper" "The Betrayal", and "The Crucifixion". A temporary studio was built on the outskirts of Jerusalem, the sun supplying the sole illuminant. Bland's first scenes, however, were taken at Tiberias, on the Sea of Galilee, one hundred and forty miles from Jerusalem. The episode was that of Jesus speaking to the Woman of Samaria. George Holluster, the cameraman, lit his after lunch cigar with the lens from his camera, burning-glass fashion, and was immediately conscious of a hush amongst the spectators. A village elder then stepped forward and requested Olcott to leave his cameraman behind when he departed so that he might act as village magician. This little incident astonished the company, not because of the naivete of the request but because they realised that time had stood still for countless centuries and that, to many of the bystanders, the film was no mere piece of play acting but something akin to reality itself. They were hardly more astonished when a beggar insisted on presenting a scroll to Henderson Bland headed "The Description of Christ" and purporting to describe His appearance as taken from a letter by Publius Lentulus, predecessor of Pontius Pilate.

These two incidents moved Olcott to do everything to ensure accuracy. He became like a man inspired. The raising of Lazarus was filmed at a hamlet two miles outside Jerusalem called Bethany (House of the Poor), where Olcott found a place of abject gloom and poverty and where he actually used the sepulchre reputed to be the rock-hewn one of Lazarus. Gene Gautier, Olcott's co-worker, says that Olcott gave all his strength and vitality to directing the extras in the picture, shouting, cajoling, threatening, but that, after a shot had been made, Henderson Bland stepping before the camera at the last moment, he would throw out compliments with enthusiasm.

His direction reached its zenith in the poignant realism of the final scenes of the Crucifixion. He caused a big timber replica, fifteen feet long to be constructed. Toiling up the steep incline of Via Dolorosa, the wood cut into Henderson Bland's shoulder and, with the press of soldiers and unbelievers scoffing at him, he almost fainted.

Such was Olcott's passion for realism, and Bland's desire to carry complete conviction in everything he did, the crown of thorns was no make-believe prop. Five times the procession had to stop because of the agony which Bland was suffering, and just by the Convent of St. Veronica, he stumbled.

It was on the spot where, according to tradition, St. Veronica brought the napkin with which to wipe Christ's face and which received an indelible cast of his features.

The sceptical may think that Bland and Olcott were now carried away by the mysticism of their subject, that they were projecting playacting into a pretence at reality. Probably they were—one cannot restrain players from making a field day of an emotional set-up when they get the opportunity. What is important is that both of them had brought about an actuality of reconstruction on actual sites which probably holds in its core the essential attribute of cinema over most of the other arts, and which, with the exception of the reconstructions of the modern producer, Louis de Rochemont in *The House on 42nd Street*, 13 *Rue Madeleine* and *Boomerang* (which stem directly from the March of Time school), has seldom been attempted from that day to this.

At all events, Bland and Olcott so impressed the nuns at the Convent of St. Veronica that the Reverend Mother was moved to rush out with a glass of wine and press it to the actor's lips.

When the Cross was erected it is reported that the onlookers were so moved that they wept. None of which would be of any great importance except that this film, unlike most of its contemporaries, still exists and the film-goer of to-day can make his own evaluations. The Vicar of Holy Trinity Church, Aylesbury, the Rev. Brian Hession, went in quest of the film a few years ago to America and acquired it for re-issue in Britain. His search was a seemingly impossible one; the film was more than thirty years old then and though everyone to whom he spoke about it in the New York film world remembered it, no one knew what had become of it.

In desperation, the Rev. Brian Hession tried the junk dealers who

deal in waste celluloid but once more drew a blank. Then he tried all the old vaults and cellars which had once housed flourishing film concerns. Finally, on a dust-laden shelf, he found, not a copy of the film, but the original negative. Adding a sound track and commentary, he obtained the right to re-release the film.

To-day it appears to be somewhat overacted, and the camera work is stilted, the camera being merely a recording instrument and not part of the pattern of the exposition of the story itself. Its pace is slow by modern standards, doubtless an attempt to obtain dignity, and Bland's performance is so sedately remote as to be not so much an acting performance at all but a series of dignified poses. It is somewhat surprising therefore to learn that when Olcott returned to America with his picture the proprietors of the Kalem company were aghast, regarding the subject as dynamite. Also film was then still being sold at a flat rate of a few cents per foot and very few showmen would buy more than two thousand feet at a time, yet Kalem was landed with a negative which ran to the unprecedented length of five thousand feet.

Olcott presented his bills along with the negative. He had spent one hundred thousand dollars on the picture. That, likewise, was entirely unprecedented ; at that time one thousand dollars was still a very large amount to spend on making a one thousand foot picture.

They made two decisions. The first was to remove their name from the film ; they would have removed Olcott's as well only, at that time, it was not the practice to give credit titles anyway. The second was to release the picture as five separate reels. Needless to say, Olcott resigned.

The picture was given some cautious try outs. Audiences seemed to be unsatisfied ; they wanted to see the whole film. Greatly daring, Kalem released the picture as a five-reeler.

In Britain it was put on at the Queen's Hall, London. It enjoyed an astonishing run of eight months. This was probably due to the enormous amount of publicity which it received owing to the great outcry which the *Daily Mail* made about it ; " Is nothing sacred to the film maker ? " it demanded, and waxed indignant because the film had been made to enrich the pockets of American film producers, though what bearing their nationality had on the matter was by no means clear.

Israel Zangwill described it as " An artistic triumph—the kinema put to its true end " and his words were freely billed outside the

theatre. The Clergy were invited to see it and pronounced itself, in the main, as by no means affronted by the film. The controversy resulted in the formation of The British Board of Film Censors, an organisation which the film trade itself created to forestall official censorship. By paying a fee of £2 for every reel of film viewed, and by appointing a panel of viewers under a censor, none of whom had any film trade interests, the growing cinema industry neatly created a censorship body which was both self-supporting and strictly impartial, and which, therefore, was not swayed by any sectional interests either in the film trade or outside it.

Otherwise, Olcott's film has left no lasting mark on the industry and perhaps even less on the art form of the film. Olcott himself re-appeared at a much later date to direct one of Rudolf Valentino's successes and a George Arliss picture, and then came to England to supervise production at the Beaconsfield studio of British Lion Films, since when he again seems to have given up direction.

The early years of the cinema are alive with famous names, such as that of Charles Pathé and of Sigmund Lubin, of George K. Spoor and G. M. Anderson or Broncho Billy. The latter, under his real name of Max Aaronson, formed the Essanay Film Company, the title of the company being the initials of Anderson and his partner, George K. Spoor, but the artistic achievements of these pioneers are not of importance because artistic achievement was not one of their aims and when it did occur in their pictures it was largely a matter of pure chance—a flash in the pan from a struggling director with an idea or two in his head who was trying to rise above the ruck of the run of the mill entertainment which was then being churned out to keep the film hungry nickelodeons satisfied.

So, just as *From The Manger to The Cross* left no more lasting mark on the industry than founding the fortunes of Louis B. Mayer, later Vice President of the vast Metro Goldwyn Mayer company, at a time when he owned one small cinema in Massachusetts, and establishing Samuel L. Rothafel, builder of the famous Roxy cinema in New York, this 1911 attempt at actuality and spectacle, as well as all its British contemporaries—the output of Barker, Clarendon, Hepworth, Cricks and Martin, Paul and Mottershaw, meant very little advance on Edwin S. Porter and his *Great Train Robbery*.

Porter took a plunge greater than any one can now properly evaluate when he started sticking scenes together to tell a story. He took a great risk that the audience would not understand why his

pictures flitted from one place to another without a break ; the theatre lowers the curtain between scenes, but he went straight from one scene to another. Even the magic lantern show either dissolved its pictures into one another or jogged them across the screen. Porter had established a form of screen story telling by placing visual images on the screen one after another in ordered but rapid arrangement and sequence. He carried his work no further ; he was a mechanic rather than an artist. It was left to another director to forge an art form out of the film. The director was D. W. Griffith, who had been employed by Porter at the Edison studio as an actor.

The company was the American Biograph and Mutoscope Company. Biograph meant film pictures while Mutoscopes are those penny-in-the-slot pictures which one views by turning a handle at the side of a peep show machine, thus causing photocards mounted on an axle to turn over and give a semblance of movement. They usually have such spicy titles as *What the Butler Saw* or *Parisian Follies*. D. W. Griffith made a few Mutoscopes and, who knows, one may be still able to see them in the rusting machines on the piers of forgotten seaside towns.

The American Biograph Company was the real nursery of the budding moving picture and D. W. Griffith the first to guide its tottering footsteps from the point where Edwin S. Porter left it to where it stood in the late 20's when its art form was submerged, and remains submerged to this day by the advent of the sound tracks which completely undermined its forcefulness as a means of telling stories purely by visual images cut and arranged in juxtaposition to one another in a form of screen writing, a screen story telling form which has now been overlaid by the all too easy and less stimulating use of sound and picture in stage play form. Gone are the fades, and irised detail, the montage, and the flash, the parallel action—with its thrilling cross cutting—the close up with its tremendous impact.

The vigorous, stimulating, excitingly spacious screen itself has become little more than a mere proscenium arch. Until the day when the real technique of making moving pictures returns, the day when dialogue will do no more than was done by the few and far between explanatory sub-titles of the later silent pictures, and camera work, cutting, music and sound are woven into one fabric to make an emotional impact on audiences in place of the all-too-easy and facile use of words, words, and more words to tell the story, it is possible that the pioneer work of D. W. Griffith will be overlooked.

THE UNCIVIL CINEMA WAR

BEFORE D. W. Griffith reached his zenith, artistically speaking, and his undeserved financial downfall with *Intolerance*, the film industry in America was to struggle through a period of internal strife.

Unlike most new industries, it had no difficulty in selling its wares. The films boomed to such a tremendous degree of popularity that the difficulties sprang from this factor alone ; business trustification set in with a vengeance and all but strangled the infant art in a mass of lawsuits designed to make the position of a film trust unassailable.

Edison, who had thought so little of the financial possibilities of the cinema that he had been reluctant to make a couple of dozen projectors, became the figurehead of a combine which came to be known as The Patents Company.

The issue was clear-cut : Edison claimed to be the inventor of the cinema and the originator of all apparatus used for taking and showing moving pictures. All other machines, it was claimed, were a violation of his patents.

The Patents Company, however, was willing to allow cinemas to continue in business provided they paid a royalty on their projectors and showed only films made by the trust. As for film producers, only those admitted to the sacred circle were to continue to make films. All other producers were to stop their activities forthwith because they were using " bootleg " cameras which, it was alleged, infringed Edison's patents.

The trust idea originated with the New York bankers who put in an " expert " to straighten out the affairs of the American Biograph Company in the autumn of 1908. The " expert " became fascinated by the moving picture business and its vast scope. A brush with the Edison Company gave birth to the idea of a combine. He bought one or two patents—one was the Latham Loop, which figured prominently in the protracted legal battles which ensued.

Film, while going through a projector, is likely to tighten up and snap ; Woodville Latham overcame this by placing an additional sprocket wheel in the mechanism so that there was always a small, loose loop of film which, by tightening up or slackening according to the vagaries of the machine while running, gave sufficient play to the film to prevent it breaking. A small thing but important.

With the Latham Loop as his talking point, the efficiency expert sought an interview with Edison. From their discussion the Patents Company, as it was called, was launched in the last days of 1908.

It was the first shot in a bitter trade war. It had one remarkable aspect. Though for the next decade the moving picture business was in a state of internal warfare, the picture-going public was blissfully unaware of what was going on.

More than half a dozen companies worked under Edison's Patents despotism—Kalem, Vitagraph, Selig, Essanay, Lubin, Pathé and Melies. The powerful American Biograph concern ultimately joined their ranks and war was declared on all independent film makers outside the charmed circle.

The first shot was fired in January 1909.

It came in the seemingly harmless guise of an invitation to exhibitors, renters and makers of films to attend a trade meeting.

Amongst the recipients were the Warner brothers and Carl Laemmle. They went along quite unprepared for what they were to hear.

In future, they were told, all films were to be produced solely by The Patents Company or under its licence ; every film distributed was to be a Patents Company film, only Patents Company cameras were to be used in taking pictures, and every cinema was to pay two dollars a week royalty on its projector.

In short, all films were to be made, distributed and shown only under the ægis of the new trust. There was to be no argument and no discussion. The tone of the meeting made it clear that renters and exhibitors were expected to submit without question, or get out of the business.

The "independents" were small, unimportant people. Carl Laemmle was a fiery little man, the Warner brothers were four young men trying to establish themselves in the new business as distributors of pictures. They were joined by three small producing companies, Yankee, Rex, and Actorphone.

The Actorphone studio, a meagre single stage, boasted a camera.

The Independents promptly encased it in a sheet-iron cover and brusquely reprimanded any actor who tried to look at it. It was an Edison camera.

The studio was always kept locked, and the staff were sworn to secrecy, but, one day, it was imperative that the camera go on location.

Its immunity was short lived ; a passerby became interested in it, questions were asked and it then transpired that the friendly stranger was an agent from the Patents Company. The principals of Actorphone found themselves in court on three counts and were made to give an undertaking not to infringe Edison's patents further.

The temptation—and the rewards—of defying the Trust was too strong. In a big shed on the outskirts of New Jersey Actorphone started up again, was once more apprehended and was again soon on the run.

In far-off Philadelphia the outfit found a haven, working undisturbed on a roof-top studio. No one thought of looking for them there. They were, in fact, working right inside the Patents Company's domain ; the roof belonged to Sigmund Lubin and Lubin was a member of the Trust. Lubin had let them have the roof top, for Lubin had a soft spot for the Independent producers who were now hounded from one backstreet "lot" to another.

Most promising aspect of the early stages of the war, from the Independent point of view, was that Edwin S. Porter left the Edison studio to join their ranks. With Lois Webber as his star, he turned out highly saleable films. Carl Laemmle, shortening the title of The Independent Motion Picture Company, the anti-trust company, to Imp, likewise got away to a good start with a version of *Hiawatha* in which the late Gladys Hulette was the star.

An ex-blacksmith named Pat Powers also entered the arena as an Independent gladiator with an adolescent actress who was then and for several years the rival of Mary Pickford, a pretty, child-like creature with glossy auburn curls and a saint-like expression whose real name was Juliet Shelby but who, to still further rival Pickford, was given the new easy-to-remember name of Mary Miles Minter.

Soon yet another producer joined the Independent throng, a stock company actor with the fine, resounding name of Thanhouser, who made "bootleg" pictures in an abandoned skating rink.

The Edison and Biograph interests did not view these activities with a friendly eye. At first, however, they proceeded with some

caution, feeling their way. The "independents" were up to all sorts of ruses ; there was, for instance, the camera which they introduced in which the film moved continuously instead of intermittently. It also had a novel system of lenses which "followed the film" as it moved, taking the pictures without benefit of a stop-start movement.

Few believed that it did what was claimed for it. Some even went so far as to suggest that inside the camera there was actually to be found an Edison mechanism.

The Patent Company also had its problems with the exhibitors who ran the nickelodeons. Their own official distributors could not resist making money and were constantly being detected in selling films, in secrecy, to "outlawed" theatres.

To put a stop to this, they hired a brawny footballer who, with a bodyguard, visited the theatres and seized all unlicensed films. To tighten up the situation further, they organised a Patents Company distributing concern, the General Film Company. To meet this challenge the Independents started The Motion Picture Distributing Company, with Carl Laemmle in charge.

By 1910 the war was well and truly on. The Patent Company next entered into an arrangement with the leading photographic suppliers whereby they supplied only Patent Company producers with raw film.

Immediately a black market in film stock came into existence. Even ships coming into dock were raided to obtain supplies.

The British film manufacturers saw, and seized their chance. Hundreds of copies of every British film were printed for the American market.

At Walton-on-Thames Hepworth was selling his one-reelers to the States by the hundred, so was Clarendon at Selhurst, Cricks and Martin at Croydon, and Williamson at Hove. New British film companies sprang into existence. It was a boom time for British films.

After a year, the photographic factories resumed sales of raw film to everyone who wanted to buy.

The Patents Company bought up half the distributing concerns, about fifty in number, and the Independents bought up the other half.

The United States courts were swamped with litigation. It was an avalanche of almost unbelievable proportions ; for more than three years actions were filed at the rate of nearly a hundred a year.

But the law is notoriously slow moving. If Carl Laemmle and his followers were out to "bust the Trust", the Trust was out to bust them, not only on paper, but actually in their hastily rigged-up studios and on location in the streets and parks. They went all out to get the Independents' cameras and produce them in court as evidence of patent infringement. But the people they employed to do this work were over-enthusiastic, for, so the Independents protested, the strong arm of sabotage was used, and not only were the Independents' cameras seized, but their offices were wrecked as well and, on occasion, their stage hands and camera-men "beaten up".

That the Independents had no recognised studios was an asset in avoiding these onslaughts of the Patent Company's agents. Open-air stages would be opened by the Independents behind hoardings on waste ground in the New York and Fort Lee suburbs. Grinding out film at high pressure, the Independents' camera-men would get as many dramas and comedies "in the can" as they could before the Patents Company discovered the plant and sent along its emissaries to put it out of action.

As soon as one open-air studio was broken up or forced to decamp at a few moments' notice, another would open and get into its stride in an hour or two in a frantic endeavour to shoot as much film as possible before the Trust got wind of it.

Not every film could be made on open-air stages, simple as screen drama was in those days; directors had to introduce streets and parks, trains and cars, or else lose the essential mobility of the moving picture medium, consequently when the Independents went on location to make scenes in the highways and byways, they were an easy mark for their adversaries. No sooner did a camera start turning on a film than a horse-drawn van or motor-truck would appear, disgorge half a dozen huskies, who would straightway grab the Independents' camera and give as good as they received in the inevitable mêlée which ensued.

Everyone fought in these rough and tumbles for the mastery of what was to become one of the world's largest industries—directors, actors, stage hands and crowd players. It is difficult to picture actors to-day fighting over the very tools of their trade, yet, in 1910, it was no uncommon sight in the streets of New York.

All sorts of ruses were resorted to in order to "save the picture". Odd scraps of metal and wheels from broken clocks would be arranged in the semblance of the mechanism of a film camera and

fitted into a common deal case camouflaged with two or three coats of varnish and embellished with an old lens picked up from a junk stall for a few coppers. A conspicuous handle labelled it a "movie camera". This dummy would be displayed in the street, the actors going through a makeshift performance in front of it. Soon the Trust agents would swoop down, and, after a struggle, make off with the "camera". As soon as they had gone, and the Independent players had stopped laughing, the director would bring the real camera out of a harmless-looking delivery van standing near-by and start work in earnest.

It was a battle without war correspondents. It was only long after that many of the facets of the struggle came to light.

There was, for instance, the story of an Independent's leading man who, in the middle of a love scene taken in a New York park, found himself embroiled without warning in one of the Patents Company's sorties. One moment he was making love, the next he was fighting. In the battle he received an ugly gash in the cheek. When peace reigned again he found to his dismay that no amount of plaster or paint would conceal the wound. The camera had been saved, but if the picture were continued it would mean that, half-way through the love scene, he would suddenly turn away from the girl and reveal, for the first time, an ugly gash on his left cheek.

Film was too precious for the director to consider scrapping the scenes he had already made, so he hit upon a valid excuse for the scar, and at the same time sent his leading man's heroic qualities up several points. They resumed shooting the love scene where it left off, taking care to turn the actor's profile so that the wound did not show. A new character was introduced, a thug who leapt from the bushes and demanded money, a sub-title explaining to the audience that he was blackmailing the hero. The hero, his honour—to say nothing of the lady's—being at stake, sprang upon his persecutor, who took care to hit him on the left cheek. The hero was victorious, and his realistic wound was thenceforth exhibited throughout the remainder of the picture.

On at least one other occasion the Independents turned their misfortunes at the hands of the Patents Company's bullies to good account. A director got wind of a plan to seize his camera; nothing daunted, he went on location in a quiet street in Brooklyn with a dummy camera, his real camera being hidden in a laundry-van. It was not long before the Trust men were on the scene, and endeavoured

to seize the make-believe machine. Quite unknown to the combatants the real camera was grinding away, recording the fracas! Hurrying back to the studio, the astute director got to work on his negative and, with the aid of scenes from other pictures and the skilful use of sub-titles, created a slapstick production. Exhibitors and audiences accepted it as an ordinary comedy, but judge of the Patents Company's annoyance and chagrin when they discovered that their hirelings had taken part in a picture for the Independents and that the fight scenes—and they lacked nothing in realism—hadn't cost the Independents a penny piece for "extras"!

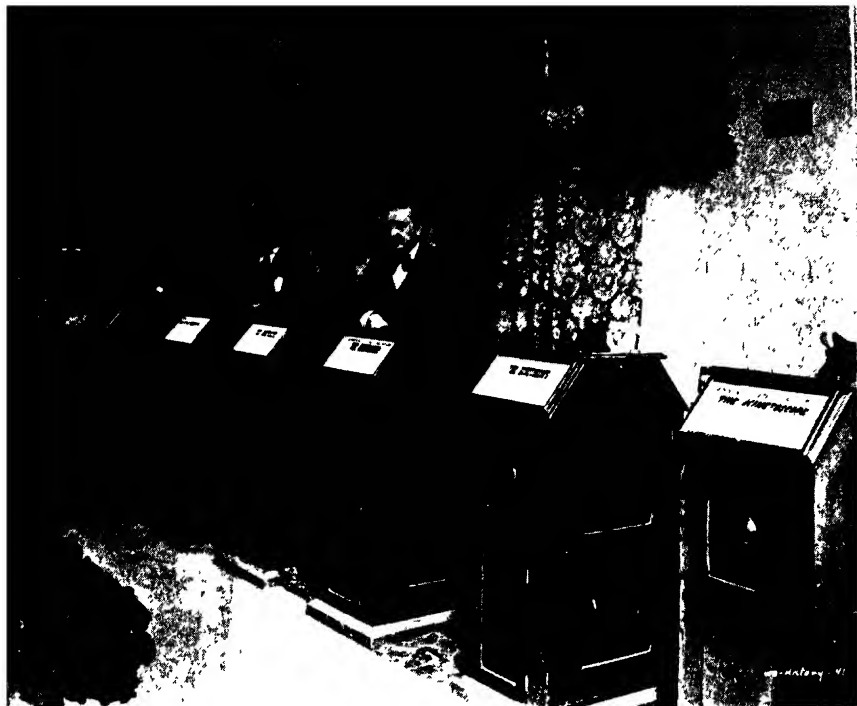
If the Press did not give much prominence to the Patent War, it may have been because of the fate which befell one of its representatives in the early days of the struggle. He was young, enthusiastic, and persistent. He determined to get to the bottom of the whole matter by finding out whether the Patents Company had any justification for saying that the Independents were infringing their camera mechanism. He went to an Independent company and explained his mission. He was received, to his surprise, with suspicion. Already the Independents had had one or two mysterious individuals snooping round and bribing their camera-men to let them see inside their cameras.

The more interested the young journalist became, the more suspicious were the Independent company's officials. Finally, by the merest chance, he asked a question about the mechanism which was a key question asked by all Patents Company's spies. The journalist found himself grabbed by the scruff of his neck and the seat of his trousers and propelled through passages until, on reaching the back door, he was sent sprawling down a flight of steps into a yard.

In the Trade Press, waspish Carl Laemmle waged unceasing warfare on his opponents in the form of advertisements. Slogans, cartoons, doggerel and scathing and acid comments were all used to further the cause of the Independents and the undoing of the Trust. It was a bitter fight, made more bitter by the fact that the Independents themselves could not agree, and split into two factions—The Independent Film Company, under Laemmle, and The Mutual Film Company.

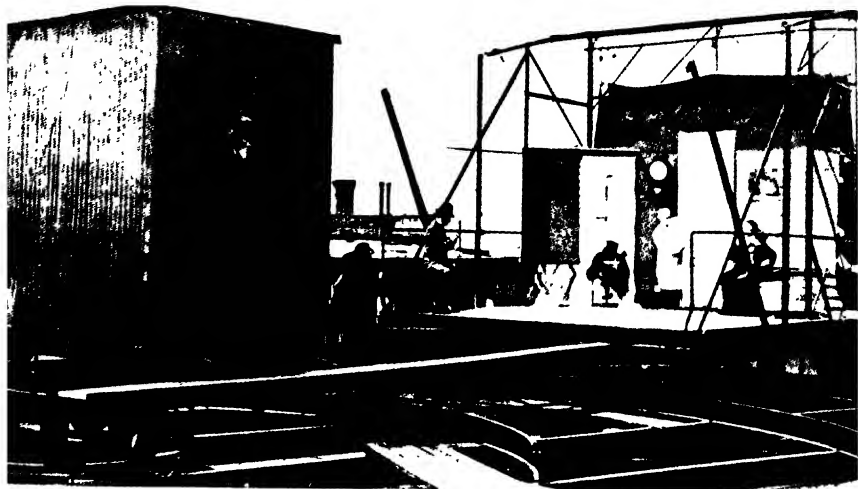
Undaunted by this split, Laemmle carried on the fight against the oppressors of the Independents to the bitter end.

At one stage of the legal battle he was given twenty-four hours in which to prove that perforations such as those appearing on the



(Above) A battery of Edison Kinetoscope peep-show film machines, about 1894
 Attendants switched them on and off for the patrons on payment of 25 cents
 (Below) Sarah Bernhardt in *Queen Elizabeth*, the film which founded Famous Players





(Above) A stage erected on the roof of an office building and mounted on a turntable so that it could be revolved to "follow the sun"

(Below) Typical open-air film stage used by South London amateurs as late as 1932





(Above) *Rescued by Rover*, made by Hepworth (right) at Walton-on-Thames in 1907
 (Below) *The Life of Charles Peace*, earliest extant example of the British story film





(Above) A reconstruction in the French film *La Kermesse Rouge* of the disastrous Paris charity bazaar fire in 1897 which was attributed to a cinema show

(Below) The barn dance in the first successful story film, *The Great Train Robbery*



edges of the film to accommodate the sprockets on the projector were in use, as he claimed, before the coming of moving pictures. For hours he and his lieutenants cudgelled their brains to find anything possessing perforations which would substantiate their claim of prior use. At the last moment someone produced a roll of toilet paper in which the sheets were torn off across perforated holes. This was solemnly carried into court and the contention that perforations were "nothing new under the sun" was solemnly upheld!

Laemmle believed in carrying the war into the enemy's camp and lured away many of their most promising players. Florence Lawrence, who represented one of his earliest prizes, was quickly followed by countless other players of note. His intention, of course, was to bring about a dearth of acting material in the Patents Company's studios. Laemmle's exuberant, indefatigable nature did not permit of his victories going unrecorded, and so, when he succeeded in capturing a star from his opponents, he quickly made the player's name known throughout the cinemas in order that the public should associate the best talent with the product of his studios. Gone for all time was the anonymity of the players. The idea that actors must not be given publicity lest they ask for more money died hard, but the Patents Company found itself forced to conform, or lose the public's interest in view of the clamour about their players which the Independents were sending up.

The constant sabotage of the companies making pictures "on the side" in New York led to units being sent out on roving commissions to make pictures how and where they could in all the highways and byways of the United States. A director, camera-man, and carpenter would set off with two or three film actors, but no actresses.

A canyon or waterfall would suggest a background for a story. The director would rough out a scenario on the back of an envelope, the picture would be cast, the heroine and small part players recruited on the spot from the local inhabitants and the picture put in production. Shooting would not take more than two or three days, the company putting up at the nearest inn for the night, then the entourage would move on until something else presented itself.

In this way the movies became free of the conventional four walls and city street and park bench complexion which they had assumed in America during the years immediately prior to the Patent war. Naturally audiences revelled in dramas which took them through the

Grand Canyon of Colorado, the deserts of Mexico and to the islands of the Pacific.

This move had to be, in the nature of things, countered by the Patents Company, and so they, too, soon had their caravans out and about. Units would be gone for weeks, if not months, at a time, keeping in touch whenever possible with New York by cable, although many of them were lost as far as their headquarters were concerned for days on end in cases where they were so far off the beaten track that it was at least forty-eight hours to the nearest cable or telegraph office.

The Independents still had their difficulties, however. Injurious chemicals would find their way mysteriously into the baths in which films were developed; printing machines would fail to register the "frames" properly, with the result that audiences sometimes saw the heroine's head at the bottom of the screen and her feet at the top.

Those companies which remained in and about New York became acutely aware that the fighting by the Patent gangs was becoming highly organised. Stones and sticks were used in a mob scene shot by an Independent on a wharf at Long Island. A dozen of the men seemed to be acting in concert. When shooting started they lay about them with such vigour that five actors were taken to hospital.

The court battles were also not without their dramatic side. At one point of the protracted proceedings, the Independents claimed that the Latham Loop had not originated with its so-called inventor, Major Woodville Latham, but had been forestalled by others.

The Patents Company eventually found Latham, the man who, so they claimed, had perfected the moving picture. He was living within a bus ride of the storm centre of the legal battles which were being fought.

Old and ill, existing on a pittance earned as a book canvasser, they found the old gentleman, penniless but proud.

Within a week, a doctor and nurse in attendance, the Patents Company called him as a witness and he testified how he had devised the loop of film during his first attempts at showing moving pictures.

The Patents Company was delighted. They made him an advisory expert, to avoid the stigma of charity, and asked him what retainer he needed. The old gentleman thought for a long time and then announced that he could not accept the office for less than fifteen dollars a week. Actually he was given double that amount.

It did not have to be paid for long. Latham died in 1911, and his

testimony had, as it transpired, done little to sway the battle in the Patents Company's favour, for the opposition camp had dug up the undeniable fact that William Friese Greene, the Englishman, had forestalled Edison by several years. Accordingly, Friese Greene was contacted and journeyed to America to give evidence.

The litigation, the arguments, the claims and counter-claims went on interminably. The whole face of the moving picture industry had changed since the battle started ; the Italians had begun importing their " super " films, *Cabiria* and *Quo Vadis*, and Griffith had made *The Birth of a Nation*—events which altered the former methods of distributing and showing pictures. The nickelodeon had given place to the picture theatre. The film had, with the years, developed from the mechanical thousand-foot affair taking two days to produce to a much more elaborate and better staged piece of entertainment.

New producers had come into the field, a new town devoted to film making had sprung up, and the public were now becoming the fans of particular film players rather than of the moving picture.

The Patents Company fought on until 1915. Then the United States Courts ruled finally and irrevocably, after hearing all the evidence and weighing all the facts, that William Friese Greene, not Edison, was the inventor of the cinema.

Outside the court Carl Laemmle surprised passers-by by executing a war dance in the street when this final judgment was given.

Yet it hardly mattered ; the Patents Company had begun to disintegrate.

Hurriedly its component parts now formed themselves into a new alliance which, they hoped, would be able to compete with their thriving competitors. Amalgamation and trustification still hypnotised them ; they called themselves VLSE. Overnight the old trade marks vanished from the screen. VLSE took their place. The initials stood for Vitagraph, Lubin, Selig and Edison.

Though they made multi-reel pictures, their mentality was still cast in the one-reel mould. They still hesitated to pay film actors large, sometimes fantastically large, salaries.

They did not flourish. Almost unnoticed in the march of current movie events, VLSE disappeared, and four names which had once been familiar to every film-goer, and their trade marks—such as Vitagraph's American eagle and Lubin's " bell "—were seen no more. The defeat of the once all-powerful and tyrannical Patents Company was complete. The film war was over.

LADIES AND CHILDREN SPECIALLY INVITED

LONG before the Patent War had ended, the face of the exhibiting side of the film business had begun to change.

Efforts were made to raise the tone of the halls in which the films were shown. Tip-up seats took the place of the chairs and forms. The mechanical piano or barrel organ gave place to a piano played by a pianist, usually a woman, who had a repertoire of "pieces" which could be made to fit almost any mood conjured up by the action on the screen.

The doorman was given a big syringe with which to spray the auditorium.

The public resented him, thinking that his office implied that they were vermin-ridden. His heavily-scented spray, managers hopefully believed, might kill germs in the air, not on the person, but the real reason for his spraying was to sweeten the fuggy atmosphere of the hall and to make the air humid so that the fumes from innumerable pipes and cigarettes were dispersed, for they interfered with projection.

Slides were introduced. Some of them were song slides and, in the more sedate seaside and suburban halls, a singer was employed to entertain the audience. In big picture hats, and in tight-waisted but voluminously skirted dresses, ladies of tremendous refinement warbled of little darkies, lonely sailor lads, and poor drummer boys. Managers were confident that their turns raised the tone of the hall; they certainly made a welcome relief for the eyes from the terrible strain of watching the ill-lit and rainy pictures. While they sang, the operator could change the spool of film on his machine, always a problem in those days because theatres had only one projector.

Audiences, when there was no singer, very often failed to understand the reason for this few minutes wait between pictures. A slide was introduced after a time to reassure them: "One moment, please, while the operator changes the spools".

Theatre proprietors liked that. It is perhaps part of human nature to covet authority and to have a desire to push other people around, and soon the slides became almost as numerous as the films themselves. Some of them are reproduced here (page 219); others, even more admonitory, sternly ordered the drunkards to mend their ways (as though a drunk either knew or cared what they said!)—"If you are intoxicated your patronage is not desired".

In many halls the front seats were dearer than those at the back, the proprietor, following the example of theatre and music-hall, charging highest for the stalls and lowest for the pit. The original penny and twopence admission later became standardised at sixpence for the front seats and threepence for the back rows.

After a time the showmen discovered what the audience, clamouring for threepenny tickets, already knew, namely that the pictures looked steadier and clearer and less "grainy" the farther back one sat. The prices were naturally very quickly changed over.

The operating rooms in which the projectionists worked were small, unhealthy little sweat-boxes, and, with the end of the first decade of the century, the projectionist had fallen from his first fine status of handsomely rewarded music-hall wonder worker to a toiling, underpaid drudge. He still has a lot of leeway to make up; though the quality of the projected picture and therefore the audiences' enjoyment largely depend on his skill, he is still only indifferently rewarded for his part in the show.

Film fires, the tightening up of regulations, and the building of halls specifically for showing moving pictures, brought about, in time, release from the crabbed compartment in which projectionists used to be confined. Though not luxurious, operating boxes are now rooms possessing the amenities of cleanliness, neatness, fire precautions, and an outlet to the fresh air.

Presumably most of the older generation of film-goers have their own memories of the early electric theatres. Recollections fade with time; even the atmosphere of the old-time music-hall, with its chairman and singing waiters, is only a legend to-day. Those of the picture generation, like myself, would like to have more detailed descriptions of those other days but few contemporary writers bothered to set them down. In another generation or two they will be almost as difficult to recall as the old barnstorming theatre of Vincent Crummies. And after that, the electric theatres will also become wrapped in mystery.

Here is a recollection of a typical electric theatre—it stood close by the twin railway bridges on the east side of Rye Lane, in the bustling suburb of Peckham. Its proprietor, an American, rejoiced, I have subsequently been told, in the proud Christian names of George Washington.

The frontage was the size of a large shop; its pay-box was set between twin pairs of swing doors. The handles and footplates of the doors were of gleaming brass. The entire frontage was painted white, with the words *Electric Theatre* picked out in naked electric-light bulbs which burned even during daylight hours. There were fretwork scrolls to conceal the bareness immediately below the fascia.

The notices with which the doors were painted, in gold leaf, stick in the memory as symptomatic of the frantic efforts of the period to establish the cinema as a respectable form of entertainment.

"To Elevate, Instruct and Amuse", proclaimed one door, while the other announced: "Ladies and Children Specially Invited". On either hand were crude double-crown bills announcing *The Biograph Girl* (namely Mary Pickford) in her latest one-reel film, or a British subject, such as "*Billy's Bible*", story of a soldier saved from a fatal bullet by the Bible in the pocket of his tunic.

A man in uniform smacked these boards with a swagger cane and cried: "No waiting, continuous performance!"

The hall provided an hour's show for sixpence and threepence. The films were single-reel dramas and half-reel comedies. There was a pianist behind a plush curtain suspended from a hefty brass rail below the gaunt, uncurtained screen. I suppose it could accommodate nearly four hundred people on its one floor—it had no circle—and the atmosphere was delightful in the extreme to the young and imaginative. It smelled mysteriously of damp distemper, subterranean vaults and the more voluptuous sorts of scented pipe tobacco and disinfectant spray. To the youthful mind this aura was only one remove from that of the Chinese Opium Den and a lair of the then popularly despised Mormons.

Unaccustomed smells, magic moving shadow players in violent melodrama and violent comedy, the by no means gentle cry percolating in through the velvet portieres by the door: "Continuous performance, no waiting", and the rumble and tremble of the building to the passing of the early motor buses—it was all so bad for children of that generation, though they seemed to come to no harm from it. That hypnotic whirr of the projector, those syrupy

and stimulating melodies from the piano, that atmosphere of cheap, dark wickedness—its absence of censorship above all—surely the Electric Theatres should have bred degenerates? Instead of which, its male audiences went off “with Kitchener’s lot”, as the Expeditionary Force of the First World War was called, and acquitted themselves bravely in one of the bloodiest wars ever fought.

Peckham’s Electric Theatre, like hundreds more of its type, was swept away many years ago. One of its neighbours, the Nelson Electric Theatre, existed to a much later date, closing its doors after a long, valiant, but ineffectual, competition with the talkies.

It was an enchanting place although perhaps less seductively scented than the generality of electric theatres. A long shop, its upper storeys being still a private residence, it had iron pillars down the middle of its auditorium of one hundred seats, pillars which obstructed the projector, entailing that essential piece of apparatus being placed to one side of the hall, the screen also being correspondingly off-centre. As compensation, those who watched the screen from an “eyes left” viewpoint were admitted at a slightly lower price.

The hall was supervised by a matron. She kept order amongst the children who thronged into it and also sold penny bars of chocolate broken in two, a half-bar being retailed at a halfpenny. For hygiene’s sake she displayed them on a piece of paper covering her palm. When the film broke, which was a frequent occurrence, she would loudly demand of the operator better service, her choice of verbs being both vivid and colourful.

A pianist, hidden by a low curtain, pounded away industriously throughout the slapstick comedies and serials which were the main features of the programme.

Mothers from the neighbouring Old Kent Road would call from time to time to collect their children. Standing before the screen, the chatelaine of the theatre would loudly announce the names of the wanted ones. Scuffles would ensue in the darkness, the called-for children trying to conceal their presence in the smoky gloom and their companions disloyally trying to dislodge them from their seats and expose them to the woman’s view.

The theatre boasted few amenities. The projector was housed in what had once been the shop’s window. An ever-thickening layer of bills kept out the daylight. There were no lavatories; at intervals the manageress would set up a cry of “Who wants to leave the

room ? ” Having assembled a batch of small boys by an exit door she would throw it open and await a lull in the passing traffic, whereupon she would direct her charges across the road to a lavatory outside a public house on the opposite side of the road. She waited their return with the door still open—thus letting daylight flood the screen—and caution them to wait until she gave the signal for their return when there was again a break in the passing stream of vehicles.

Little girls just suffered in silence.

There was a great deal of individuality about most of the early cinemas which the great circuit houses of to-day seem to lack. In Aberdeen one cinema, The Alhambra in Market Street, always had synchronised speech with its pictures from its earliest days. The proprietor, Dove Patterson, and his wife stood behind the translucent screen and spoke extemporised dialogue to the pictures. The programme changed twice weekly in later years and, as the films did not arrive at the theatre until noon and the hall opened at one, they had to do some very quick rehearsing during the hour at their disposal. Many other managements had to follow suit because of the popularity of the Alhambra programmes. Aberdeen had these human talkies as late as 1926, just two or three years before mechanically reproduced sound films came into vogue.

One manager, of the Picture House, in Park Street, Aberdeen, used to recount how, when he booked a picture called *The Road to Richmond* and prepared to extemporise dialogue to fit a quiet English pastoral, he discovered to his discomfiture when it started that the Richmond of the title was Richmond, Virginia, and the story dealt with the American Civil War.

Advertisements of cinemas in the first years of the boom in picture halls all stress the desirability of the surroundings and of the patrons. The Electric Palace at Marble Arch, London, in advertising “ Mirth and Merriment, Instructive and Amusing ” for the then high prices of 6d. and 1s., claimed that it was “ the picture rendezvous of the *haut ton* ” and that it was “ patronised by the *élite* of high society ”, while The Recreations Theatre, in nearby Edgware Road, with the more usual admission charges of 3d. and 6d. (“ A Little of Everything — All Interesting ” was its slogan), reassured the timid with the boast: “ Audiences From the Best Society ”.

In 1910, Montague Pyke started the famous Pyke's Circuit of cinemas.

There had been circuits before, notably Electric Theatres (1908) Limited, but Pyke's halls were the first to conform to a standard pattern and to aim at something better than the converted shop, with its white trellis work and glaring electric bulbs round the fascia.

His theatres had mahogany doors and plenty of ornamental brass handles, and the pay-box was moved back from the pavement to a miniature foyer. Over the entrance of each hall was a bas relief of classical figures reclining on a globe and reading scrolls, and the legend "The World Before Your Eyes". The seating capacity was stepped up from one or two hundred seats in these new halls to four or five hundred.

Originally a stockbroker, Pyke dressed the part of the theatrical manager, with fur coat, sparkling diamonds, a personal brand of cigars, and one of the early motor cars in which to visit his twenty-six theatres. He became interested in the cinema when, walking down Oxford Street, London, he noticed Hale's Tours, counted the people going in, and by rapid calculation, realised the proprietor was taking £250 a week.

Pyke, however, gave a two-hour programme and his top price for a seat was a shilling, although in most districts it remained at sixpence. His running expenses for each hall were £80 and his receipts seldom fell below £400. At most of his halls a cup of tea and a biscuit were given free to matinée patrons.

He is said to have made an income of £30,000 a year during his heyday. A disastrous fire at an Oxford Street theatre which he owned, and which resulted in a charge of manslaughter because of his alleged negligence—the bill was thrown out by the jury—coupled with losses due to World War I, made him turn his attention to other money-making schemes—the first speedway track to be established in Paris and a greyhound racing track in Cardiff—from most of which he made big profits, earning him the nickname of "Lucky" Pyke. At the age of sixty-one he was reported as being about to start up a new circuit. That was in the summer of 1935. But, in the early autumn of that year, he died, his name practically unknown to a later generation of circuit promoters.

That first attempt by Pyke to establish a cinema circuit having some pretensions of refinement as its keynote is also reflected in the period in the attempts by the early news reels to raise the picture hall above the penny gaff by making it a place where the more thoughtful type of patron might see world events as well as turgid

drama and hearty slapstick.

Not that the news reels were always as authentic as the thoughtful patron had a right to expect.

In Lumière's original programme at the Polytechnic in 1896 there were the rudiments of the news reel—*Arrival of Mail Boat at Folkestone* and *Changing of Guard at St. James's Palace* were two of the titles shown during that historic first season.

The first news reel theatre proper, however, would appear to have been opened by an astute contemporary of the Lumières, Alexander Rapoutat, who, in a little hall on a busy Boulevard in the Paris of 1897, packed his eighty seats with patrons eager to see scenes which he had himself shot in the streets of Paris during the day. He must have been a man of great resource, for the camera which he used had an illuminant placed in it at night and did duty in the theatre.

Paul and the Gaumont company, as represented by Bromhead, were early on the screen with the Derby and other topical news events, but another undertaking, the British Bioscope Company, also made an early entry into the news film field, and did it with film half the width of a postcard, film, moreover, which ran through the camera without perforations or sprocket wheels. It was fed over a series of eccentric rollers to impart the stop-start movement. In action it was said to make a noise like a lawn mower. It was unique for the late 'nineties in that it was driven by a motor, a motor which, incidentally, also served to add to the din.

At the funeral of Mr. Gladstone, the company paid a handsome sum for a site on the steps of an insurance building near the west door of Westminster Abbey. They draped their camera with black crepe. When the hearse stopped within thirty feet of the camera, the cameraman timidly ventured on a shot. The appalling racket which the camera and motor set up caused the then Prince of Wales, later King Edward VII, to look up in disgust and alarm. Just at that moment the film broke and, to the cameraman's great relief, it lapsed into silence.

Reproduced actual size in the illustrations (page 157) are a few frames of film made by this leviathan of cameras. It shows the University Boat Race of 1898, from a point opposite Putney Pier.

London's first news reel theatre was "The Daily Bioscope", which opened in May, 1906, in the premises next to Bishopsgate Fire Station which had originally housed Mr. Miller and his "Moving Pictures".

It opened daily from 12 noon to 9 p.m. and its admission prices were twopence and fourpence. The announcement of a special *matinée* for children on Saturday afternoon has a familiar ring.

It presented a programme of news items from all over the world and a couple of half-reel comedies. And, if it had not pictures of headline news events, it always managed to put on a film which had some bearing on them. When the San Francisco earthquake occurred it announced *The San Francisco Disaster* and, in presenting an ordinary travelogue of that city, pointed out in its printed programme: "Were it not for the flag, this would readily pass for an actual scene showing confusion incidental to the earthquake. All of the sections shown have been destroyed either by the earthquake or by the fire. Actual scenes of the ruin and devastation in this beautiful city as it appears to-day have been taken for us by our American agents and are now on the way to England".

One wonders if the actual scenes of the ruin and devastation ever reached Britain, for the American Biograph company, obtaining some actual shots of the occurrence, decided that they did not look sufficiently thrilling for popular consumption and manufactured its own earthquake and fire, in miniature, in its East 14th Street studio. The buildings were made from cardboard boxes, and the yawning cavity which appeared to split the city in two was contrived from a base of modelling clay which was laid over already-divided segments of cardboard which were pulled in opposite directions. Photographed from a distance, the buildings appeared realistic and, when it was shown, audiences were highly thrilled. No claim was made that it was authentic; nor was it pointed out that it was a fake.

The more thoughtful patron must have wondered how it came about that the great modern city of San Francisco was completely gutted and then all buildings reduced to ground level in a matter of two or three minutes.

America was not alone in making counterfeit news pictures of events, although it probably led the field with a reel made in 1898 purporting to show a naval battle in the Spanish-American War. The rival fleets approached and opened fire. The thrilling encounter ended in severe losses inflicted upon the Spanish Fleet. Audiences accepted it as authentic, and, with a fervour borne of war-time patriotism, cheered it to the echo. The ships were toys firing cannon crackers. The ocean was a pond in a back-garden at Illinois.

At Hove, Williamson made several highly successful "news"

films of both the Boer War and the Boxer Rising on a golf course.

For many years it was customary for the makers of topicals to hire a fast pony chaise to carry them from the race course to the nearest railway station and to develop the films in milk churns in a guards van prepared as a dark room while the train was en route for London. They dried the finished strips by attaching them to the luggage rail round the roof of a hansom cab, where they fluttered out in the breeze, while driving like mad to a West End hall to have the honour of being first on the screen. All the same, provincial audiences often saw the Grand National, the Derby, or the Boat Race several hours before the West End saw them. These theatres simply used films of these events taken the previous year. By running them at a greater speed than the customary sixteen frames a second, it was difficult for audiences to identify riders, racing colours, or even the position of the contestants very clearly.

Older projectionists have assured me as a positive fact that most small theatres kept two films of the Boat Race on tap ; one contained a sub-title just before the end which read " Oxford wins " and the other " Cambridge wins ". Immediately the result of the race was known the appropriate sub-titled film went on the screen. It mattered nothing that the positions of the boats did not correspond with the printed accounts.

Someone faked the signing of the Boer War peace terms and included Lord Roberts, discovering too late that he had not been there.

Probably the first news reel was *The Warwick Journal*, made by the Warwick Trading Company in Warwick Court, Holborn. A French news film, *The Eclair Journal*, also made a very early appearance. Hustle and bustle to be first with the news was not always apparent ; when the *Pathé Gazette* started in 1910, its British staff consisted of one resident man and a helper sent from the Pathé factory in France. All negatives taken in this country were packed in light-tight tins and sent by parcel post to Paris for processing and were returned to this country by the same leisurely means.

Charles Pathé himself contributed very little to the development of the cinema, although he was one of the earliest pioneers and his name is still famous in both America and Britain. By the time he was thirty he had saved a thousand francs, with which he bought one of Edison's phonographs and a light van. He travelled the fairgrounds, charging customers a few coppers to hear a record ; the results were

profitable but the life was hard. When he heard about the success of the Lumière show, he went into partnership with an inventor named Joly and contrived a camera with which to take moving pictures. His first film was the arrival of the then inevitable train at a station.

In partnership with his brothers, Pathé built a studio and, from his experience of fairground tastes, ground out a constant stream of melodramas and hand-coloured films of the pantomime sort.

His news reel prospered, despite keen competition from *The Topical Budget*, now dead, and the advent of *The Gaumont Graphic*. To-day an old gentleman, Charles Pathé, is reported to be completely indifferent to the coaxings of those who want him to tell of his memories of the pioneer days of the film business.

Will Barker, from his Ealing headquarters, was a great believer in the topical film right up to the time when he dramatically retired from the film business the day after Armistice Day, 1918. To Barker goes the distinction of having tried the idea of preparing a news reel specifically for one theatre. He called it *London Day by Day* and presented it every night at the old Empire Music Hall in Leicester Square where the present Empire Cinema now stands. He confesses that it was the pea-soup fogs of London's winter which beat him in the end. He found it impossible to take fresh pictures every day, and its first fine success of 1906 was short lived.

Without the aid of commentary and of speech on the part of the people on the screen, the pre-talkie news reel developed into a monotonous affair of statesmen aimlessly wandering in their gardens, beauties parading, ships being launched, and processions—anything in fact which did not demand the pantomime of the silent film to make its meaning clear to the audience.

The accompanying music on the piano became just as stereotyped as the pictures. No news reel opened with anything other than that rousing piece of music familiar to all dance hall habitués as the traditional air for the Boston Two Step—*Blaze Away*.

However, one sighs sometimes for those days of enterprise when to be first with the news was not always to be first with the truth in view of the still too closely trammelled scope of the news reel, a scope which can possibly be widened only by television news pictures transmitted direct to theatres at the exact moment that events are occurring. Even two minutes of a football match while it is still taking place is surely vastly more engrossing than the perpetual recapitulation of last Saturday's games on the screen every Thursday.

Be that as it may, the news reel, and Mr. Pyke's mahogany doors and cups of tea, did much to elevate the status of the cinema amongst the lower middle class.

Soon other embellishments were added to the halls. A violinist and a drummer joined the pianist. Then some congenital idiot had the brain-wave of adding sound to the pictures. Make no mistake, outside of Aberdeen and its human talkies, there was no speech. The new idea—new that is for 1910—was to ring an alarm clock bell every time a telephone appeared on the screen, to punctuate every door closing on the picture with a hefty slam, to greet every smashed window or falling cup with a noise like the proverbial bull in a china shop. Trains chuffed loudly, horses' hoof-beats thundered, and no early motor car could proceed more than a yard or two without its progress being punctuated by loud honk-honks.

Soon there appeared on the market awful machines which would make all these noises on the mere pressure of a button or the turn of a handle. Every noise was labelled on a keyboard of stops and levers. Pistol shots were tricky ; even a machine was not quite quick enough to beat the cowboy hero to the draw. The revolver fired first and the sound came in a bad second.

It was a long time before those responsible for this orgy of sound effects became aware that they defeated their own ends. The more trains chuffed and telephone bells rang, the more apparent it became that though objects could be made audible, actors certainly were not. And no actor could compete with all those banging guns, thundering hoof beats, and resounding crockery crashes when it came to enfold-ing the heroine in his arms to whisper of his adoration if his only means of communicating to his audience all that he felt was staring block capitals, on a heavily trade-marked screen, which mutely proclaimed :

I LOVE YOU

American Biograph

DAVID WARK GRIFFITH

THE first studio opened by American Biograph, the company with which D. W. Griffith made his debut as a director, was situated on a roof at 841, Broadway, New York, but, by the time D. W. Griffith went to work for them, the company had moved to an old and ugly brown-stone building in East 14th Street, New York.

It had once been the home of a millionaire and, according to legends clinging about the building, cockfights had been staged in the ballroom which the film company now used as its studio.

Only the lower half of the building housed the film company. The rest of the premises were let as offices. In the basement were the compartments where the films were cut and printed and despatched, also a common room or green room, where, seated on the baskets in which the costumiers delivered the theatrical costumes, the actors would eat their mid-day lunch.

The studio was on the ground floor. On either side of the entrance was a small office. One housed the company executive staff and the other was a general office used for interviewing actors. Double doors led on to the stage and these were usually obstructed by a heavy but movable platform on which the camera was mounted. Those actors who were not actually appearing in a scene used this platform as a seat.

The studio, which had been a piano saleroom immediately before being taken over by the Biograph concern, had a gallery at one end. This was out of bounds to the players, being the domain of the carpenters and scene painters.

The lighting equipment consisted of a few mercury vapour tubes suspended from the ceiling. After Biograph moved out the place was occupied by an artist. To-day it probably no longer exists, most of the East 14th Street brown-stone houses having been demolished to make way for modern buildings—a pity because 11, East 14th Street was the cradle and nursery of the moving picture as an art form.

D. W. Griffith advanced film technique from the point where Edwin S. Porter left it with *The Great Train Robbery*.

Griffith's contribution to the art was enormous; it would have been greater still had he not suffered from an over-developed sympathy for minorities and an idealistic but largely unreal conception of womankind.

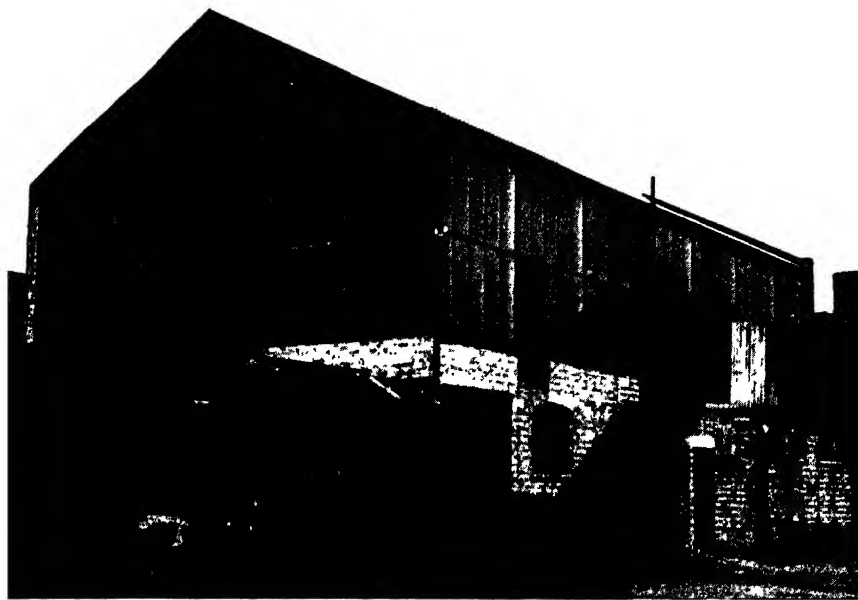
Much nonsense has been written about D. W. Griffith and Griffith seemingly now indifferent to the motion picture, seldom enters the arena on his own behalf.

His sentimentality would seem to have been born of the defeat which the South suffered in the American Civil War. Born in Kentucky in 1880, the son of a veteran of the Civil War, he was brought up in an atmosphere of the "joy of the things that might have been and the pain of the things that are." The South *should* have been victorious but it was not—it was a suffering minority. Also its troubles could be ascribed to the negro, for had not the war been fought ostensibly over the question of freeing the slaves? Thus one finds his first truly great picture, *The Birth of a Nation*, attacking the negro with such savagery that it aroused a storm of controversy in America which all but brought about the banning of the film. Even to-day, more than thirty years after it was made, the British Film Institute gives a gentle caution to those who borrow the film from its archives that the first half of the film is an entertainment in itself and that the second half (in which the murderous thugs of the Ku Klux Klan set a nation aflame with race hatred) needs some explanation to audiences, particularly if they are children.

In *The Birth of a Nation*, Griffith fought the Civil War again. He could not alter history but at least he could state a case. And, of course, there was no earthly reason why he should not; the films of to-day would be more exciting if they were more controversial.

Griffith was addicted to fighting screen wars. In *Intolerance*, probably the most expensive picture ever made, for it cost two million dollars and employed, at various times, sixty thousand people (it ran for the then unprecedented screen time of three hours and forty minutes), he used an army of sixteen thousand extras in one shot, that of the Persian's advance on Babylon. In *Hearts of the World* he reconstructed World War I with the aid of scenes which he actually made on the battlefields.

It has been asserted that Griffith "atoned" for the fury which *The Birth of a Nation* aroused against negroes by a scene in *Hearts of the*



(Above) The Barker Motion Picture Company's glass top studio at Ealing Green, London

(Below) Interior of the studio of Cricks and Martin at Waddon New Road, Croydon





(Above) Cricks and Martin's *Royal England*. Sticks on the floor mark focus limit
 (Below) *A Daughter of Satan* is the apt title of this 1913 Cricks and Martin melodram





(Above) Jack Leigh (*right*) commandeers a railway engine to escape pursuit in Cricks and Martin's *Temptation*. While (*below*) another scene is typical of 1912





(Above) Pearl White, greatest of the " serial queens ", in Episode 2 of *The Black Secret*
(Below) Another famous serial player, Warner Oland, in Episode 9 of *Phantom Fox*



World—a dying white soldier who, in delirium, calls for his mother, being consoled and kissed by a coloured soldier. Perhaps, or again, may it not have been Griffith's overweening sentimentality at work ?

His heroines were fragile children—even the sturdy Mary Pickford appeared in short socks and sash in *The Lonely Villa*, one of his earliest successes. The Gish sisters, Mae Marsh, Bessie Love and Jewel Carmen were the waif-like, semi-ethereal types that he moulded into leading ladies.

He seldom tired of the "driven from home" theme of *Way Down East*, or the "waif and the bully" theme of the second half of *The Birth of a Nation* and of *Broken Blossoms*. In evaluating his work it has been customary to talk of Griffith as a social reformer because many of his one and two reel pictures of the early period dealt with the hardships of the poor. What was their real significance ?

Is it not possible that a later generation of critics forgets that in 1910 the sufferings of the poor were quite common currency in literature and on the stage ; there was still a hangover from the late Victorian period of sentimentality over the sufferings of the submerged tenth. To go slumming was still a popular pastime—it meant little else—and the popular theatre was, in Britain at least, playing melodramas of the *Only A Shop Girl* type to packed houses. In the music hall of the era the general sentiment in songs was towards the sort of thing which comedians now guy—"She was poor but she was honest" and "Its the rich what gets the pleasure, the poor what gets the blame". Just as Charles Dickens used the sufferings of the poor as good "copy" without, in private life, doing anything to ameliorate their position, so Griffith, prompted by his sentimentality, used them as a popular screen subject. All of which is not to say that Griffith was not only a great film director but possibly the greatest of all silent film directors.

Coming to the screen by way of the stage and authorship, he was the first man to realise that the screen was an entirely new medium for telling stories. Formerly all directors had used the camera as a recording instrument pure and simple. Griffith used it as part of his story telling. His camera literally looked into things—the expression in a terrified girl's eyes, for example, and he also enlarged certain shots to make them take on a new significance. He shot close ups of inanimate objects and cut them into the film to give emphasis—the impassivity of a stone lion below which men fought and bled, or a flash of a sword to show that the Ku Klux Klan rode for vengeance.

Griffith has been credited with inventing the close up, although close-ups are almost as old as the film itself. He has also become widely renowned as the discoverer of parallel action—the showing of two different sequences of action happening in different places but cross cut so that they are depicted as happening at one and the same time. Generally, too, he is described as being the creator of montage, which has now become such an overworked word as to be meaningless but which, in its pure sense, does not mean a hotch potch or composite of shots to give a general impression of a locality or a character or situation, but which means cutting the film to a rhythm which, of itself, creates excitement and tension. In the old time ride-to-the-rescue stories the cutter would give brief glimpses of the heroine tied to the railway lines, slightly longer strips of film to the train approaching, and much longer ones to the hero riding to the rescue, so that the audience responded by thinking (a) she is in danger, (b) that's a frightening train which is pounding towards her, and (c) here comes the hero but what a time it takes him—hurry, please hurry! By varying the length of the shots almost any type of audience reaction could be inspired.

In contemporary film history there are indications that most of these inventions were first borrowed from other directors and then perfected—early Pathé films had close ups, and *The Great Train Robbery* had parallel action in the little girl's plea to the barn dancers while the bandits were escaping, while the Melies films certainly groped towards montage in their cutting.

Sentimental stories, a predilection for fighting battles over again, child-heroines, and certain technical advances with which other directors had already made half-hearted experiments—is that the sum total of D. W. Griffith's contribution to the cinema?

Nothing could be more absurd.

Unlike everyone who had hitherto made films, Griffith never regarded his screen as a proscenium to a stage but as a window looking on life itself.

In fact, so little did he think of the mere physical shape of his screen, that he constantly altered it to fit the demands of his story. His camera was fitted with a device which was known as an iris; partially closed it would concentrate on one figure, then, opening out, it would reveal that this one figure was, perhaps, only a unit in a big concourse of people, thereby giving emphasis to the individual in a crowd. In reverse, he could show his crowds or his mass effect of the

set and then narrow down to an essential person or facet.

By fading in his scene, or fading it out, he secured a dramatic emphasis which was quite unlike the "curtain" in a theatre, an emphasis which was more emotional than its stage counterpart. A Griffith fade out on a lone waif heroine could be wistful and sad ; it was as though the camera said : " 'This is too poignant for you and I to look at any longer, let us close our eyes ' ".

Sometimes he would make his screen a mere diagonal slash of space ; at others he would split it into sections and show two scenes at once in order to obtain contrast.

His use of mass effects, principally masses of people, has seldom been surpassed.

That these creative ideas of Griffith's have vanished is no criticism of Griffith. Later generations of film makers have taken the easier course of using the screen as a white oblong on which to present, conventionally, politely-told story pictures. Griffith assailed his audience, not with technical effects for their own sake, but for the sake of using, and discovering, every device his medium possessed for *writing* in pictures.

He created and arranged musical scores for his later films—for music could be an additional emotional stimulus in putting his stories across.

Professional actors were unimportant to him ; nearly all of his stars had little or no experience before he took them up ; he realised very early something which the Russians discovered in later years—that practically everyone can be a film actor provided they are directed by a man who knows exactly what effect he is aiming at.

Griffith's era was the era of the megaphone to give stimulus and direction even as the camera turned ; of small string orchestras on the set to play the actors into the mood the director wanted them to assume ; of pictures being worked out as moving pictures in the mind's eye without recourse to the printed word, and he was, perhaps, the last of the famous directors to "cut in the camera", which means to keep the picture edited as shooting progresses rather than to sit down when shooting is over and try to arrange the best pattern possible from the hundreds of scenes at one's disposal. It is said that he edited *Intolerance* in just under nine weeks, despite its tremendous length, because he knew exactly where every shot came in his mental scheme of the film.

Griffith came to films after following a variety of occupations. He

was a reporter on a small Kentucky paper, a job which also entailed running the hand press, wrapping up the papers, and collecting the vegetables, chickens, and eggs with which readers paid their subscriptions. He was, by turns, a book salesman and a puddler in an iron works, a rust scraper and a picker of hops. When he was nineteen he sold his bicycle to help pay his fare to New York but, mistaking a ferryman's directions, he spent a week in Jersey City seeing the sights before he realised he was in the wrong town.

In New York, failing to land a newspaper job, he became a not unsuccessful freelance journalist and sold several short stories, but his first attempts at playwriting met no success. One day, in a public library, he read a book by Pinero in which the famous playwright asserted that the only way to learn to write a play was to become an actor.

Temporarily changing his name to Lawrence Brayington, Griffith became a super in a Shakespearean repertory company.

The nickelodeons and electric theatres were booming. Griffith turned his attention to this new medium and wrote a screen adaptation of *La Tosca* and took it to the Edison studio. They turned it down on the score of expense—it had too many scenes—but Edwin S. Porter gave him a good part in a one reeler called *The Eagle's Nest* in which a property eagle snatched up a mountain squatter's child before the very eyes of its mother. It entailed Griffith, as the husband and father, doing feats of daring on a cliff in rescuing the baby from the eyrie while the eagle attacked him. Griffith received fifteen dollars for his services, a comparatively high rate of pay for those days and probably over the prevailing rate because he had to do some climbing at The Pallisades in New Jersey.

Now realising the limitations of the one reel film, he turned out several acceptable scenarios. At the Kalem studio, the studio which later made *From The Manger to the Cross*, he acted in a couple of films, *Ostler Joe* and *When Knighthood Was in Flower*, and then sold a scenario, *Over The Hill to the Poorhouse*, to the American Biograph Company.

He was added to the American Biograph's list of players and worked regularly for them. When the director fell ill, Griffith was asked if he would direct films. He was very cautious about the matter, consenting to direct only on condition that, if he failed, the company would guarantee to reinstate him as an actor.

They agreed, and he made his first one reel picture—*The Ad-*

ventures of Dolly, which, following the pattern of the day, told how a child was kidnapped by gypsies and was concealed in a barrel on their wagon, and how the barrel fell off when the wheels struck a pot hole and rolled into a river and was carried away by the current. The child's distraught parents, warned by some boys that cries were coming from a barrel which had passed them as they fished, went in pursuit, the father ultimately securing it and rescuing his child unharmed.

The Biograph actors considered the new director fussy. He took shots of the barrel edging towards the tail-board of the wagon, and messed about endlessly with piano wire attached to the barrel in order to keep it in focus.

The film was voted a success and Griffith went ahead to direct hundreds of single reel pictures. The usual rate of production was two films per week.

Griffith's wife, Linda Arvidson, played the lead in many of them. Blanche Sweet, Mae Marsh, Mary Pickford, and Lilian and Dorothy Gish were his leading ladies. Mack Sennett, who later became famous for his slapstick comedies, bathing beauties and Keystone Police, was the comedy character man of the company, and Henry B. Walthall the straight character man. Male leading men were hard to come by; handsome young actors disdained the moving pictures, demanding the audience contact which the stage provided.

In fact, the whole of the theatrical profession looked down on the moving pictures for the first decade of the century. The films themselves were crude and the surroundings in which they were shown were deplorable, and, to a professional, however humble his status in the theatre, the moving pictures were nothing more than penny gaffs. In fact, from the actor's point of view they were worse. The films were used as "chasers" at the end of music hall programmes and might be seen by fellow artistes, by bookers and managers, and that was fatal.

So Griffith personally combed the bars of New York's theatrical rialto, Broadway, in search of talent. Often he hired an actor only to be let down; the man had consented in desperation, but, before he appeared at the studio, he received a call from "the legitimate" and naturally took it in preference to film work.

It was when Griffith first used girls with no experience—Mae Marsh was a telephone operator—that it occurred to him that he could also use untrained men as actors. After all, they had no lines

to say, and Griffith himself gave directions the whole time they were before the camera. It thus came about that he stopped goodlooking young men in the street and invited them to become film actors. In this way he secured Arthur Johnson, a tall, handsome leading juvenile who had never even thought of acting as a career when Griffith made him the first widely-known leading man in films, a career which was abruptly terminated when he died of tuberculosis in 1916.

Heroines were easier to cast. Griffith took ex-child players from the stage—Mary Pickford, the Gish sisters—at a time when they were getting too big to play children and were yet still not sufficiently developed to play adult roles. Heroines of all the early films were incredibly young—and their salaries correspondingly small.

Youth and freshness were the chief demands; acting ability was not highly necessary for the director created their roles in the studio and cutting room.

The fatal demerit in an actress was to be the possessor of a big head; then, as now, the camera was unkind to large faces. "She's got a big head", said by a technician, was sufficient for a studio to lose all interest in a woman player.

The reigning queens of the screen when D. W. Griffith entered the field were Florence Lawrence at Vitagraph, Mary Fuller of the Edison Company, Helen Holmes of the Kalem films (known also as The Railway Girl because she always played in films in which railway trains were featured), and Kathlyn Williams of Selig. Few, if any filmgoers, remember their names to-day, which is not surprising because they received little or no publicity, the film companies regarding the advertising of players as being a foolish practice to adopt. Stars had no long-term contracts and, so the film producers argued, if they made them famous they would only be enticed away by competitors offering bigger money. In this they were quite right as later events proved.

To satisfy the public, who wanted some means of identifying popular players when talking about them to their friends, the companies attached their own names to the girls—The Vitagraph Girl, The Lubin Girl, The Biograph Girl, and so on. If a star went to another company, her successor was given her crown. It was confusing, but not to the agencies in London which handled American films. With no problems of stars being lured to other studios to bother about, they invented names for the girls—they did not know their

real ones—and had them printed on the posters.

For a period of nearly two years, Mary Pickford, unknown to American audiences except as The Biograph Girl, was freely billed in Britain as Dorothy Nicholson.

Florence Lawrence, from Vitagraph, was Griffith's first leading lady, dividing leading roles with his wife, Linda Arvidson. Florence Lawrence started as Baby Flo, The Whistling Wonder, in variety, and graduated to Vitagraph where she received fifteen dollars a week ; Griffith lured her to Biograph with a ten dollar rise. Later she left him for a still better offer, and Mary Pickford assumed her mantle.

The enormous popularity which Mary Pickford won has hardly been duplicated, but its true importance lies in the fact that her personality evoked so much interest on the part of the public, and of other directors, that Griffith's directorial work, which might have passed unremarked, was brought to the fore and received the acclaim amongst other professionals which it richly deserved. More than that, it aroused the interest of the press and, for the first time, the moving picture was treated seriously as an art form and was accorded, along with music, painting, and drama, the honour of serious *critiques*.

Mary Pickford was the complement of Griffith's genius.

At the time when she entered the shabby Biograph studio the company was using as a slogan in its trade paper advertising : " Biograph Films—You Can See Them Think ". This referred to the actors and marked Griffith's break-away from the old tradition of "action for action's sake". Griffith was using close shots of his players to reveal the expressions engendered by their thought processes. Mary Pickford's expressive face, coupled with good stage training, made her the ideal instrument for Griffith's successful attempt to lift the movies from a mere exposition of movement to a plane in which the emotions of the persons involved in the physical situations was more important than their mere actions.

Mary Pickford had a sound grounding in the theatre before she entered moving pictures. Her real name is Gladys Smith and she was born in Toronto, Canada, in a doll's house of a home at 169, University Avenue, a home which boasted two small windows either side of the miniature front door and a little dormer window in the roof, a home which, doubtless, did much to foster the childlike qualities which she used as her chief stock-in-trade on the screen for many years.

Her father had been a purser on a St. Lawrence River Boat, but he

died following an accident when Mary was a child and Mrs. Smith, with three children—Gladys, Lottie and Jack (all of whom subsequently worked in pictures)—had a struggle to support them. An advance agent for a touring theatrical company saw Gladys, or Mary as she afterwards became, playing outside the tiny house and asked her mother if she would allow her to appear on the stage.

This was an entirely new departure for the family. Mrs. Smith finally decided to allow Mary to act on the stage and went on tour with her. Mary was just over five. She played Cissy in *The Silver King* and, in 1902, still a small child, starred in *The Fatal Wedding*.

Other tours were of *The Child Wife*, *New York Life* and *The Little Red Schoolhouse*. Then she obtained a role under the direction of the famous American impresario, David Belasco in a New York production of *The Warrens of Virginia*.

It was Belasco who decided that Gladys Smith was not a good name for an actress, and asked her to think of another. She recalled one of her mother's relatives who bore the name Pickford and to this was coupled "Mary".

Though she claimed her full share of praise in the Belasco play, New York was reluctant to offer Mary a permanent home and by the time she was seventeen, she had played with many touring road shows and in the summer, when ordinary theatrical business became slack, with fit-ups and one night stands at country fairs. "Playing the kerosene circuit", the Americans call it, a robust and descriptive title for a robust and colourful mode of earning a living. It put Mary Pickford into direct contact with simple, homely folk and taught her the kind of characters they love or hate, an invaluable training which stood her in good stead in the early movie days when screen drama catered solely for just such audiences.

In the late spring of 1909, even the "kerosene circuit" had nothing very alluring to offer, and as funds were getting low, Mary's mother told her to try her luck with the American Biograph and Mutoscope Company at East Fourteenth Street.

The whole family—Mrs. Smith, Jack, Mary and Lottie—had often got parts in the same play on tour; at other times Mary had gone out under the chaperonage of a Mrs. Gish, whose own daughters, Dorothy and Lilian, played child parts of the kind in which Mary specialised. Word had reached the Pickfords that the Gish girls were working for the Biograph Company, and Mrs. Smith saw no reason why Mary should not get something there too, if only for a few weeks, until the

late summer theatrical tours started.

Mary went to Union Square and climbed the broad steps of the ugly brown-stone front of Number 11, East Fourteenth Street and presented herself at the office barrier. When she asked to see the manager, the clerk was not cordial ; she was less than seventeen, and in his estimation, could hardly call herself an actress. " I've been with David Belasco", she insisted. The clerk refused to be impressed.

Mary, incensed, turned to go. The movies were even worse than she had imagined, but she found her way barred by a tall man who was staring at her so intently that she jumped to the conclusion that he must be the type her mother had warned her about.

She tried to pass, but he restrained her, whereupon she gave vent to her opinion of the despicable movies. He listened to her tirade and then, to her surprise, gently started to answer all her criticisms.

The first play actors had not been ashamed to play in booths and barns, jeered at by the crowd or scoffed at by the unthinking, he said ; their scenery, if they had any, was but a tawdry makeshift of flimsy canvas, their footlights naked wicks floating in a trough of tallow, their stalls were boxes and benches or simply the trampled turf itself, yet they had built up from those humble beginnings an art which had held its own among other arts. The movies were blazing the same pioneer path ; the Biograph Company's stage might be an ex-piano warehouse, its theatres converted shops, and its players small part stage actors glad to pick up three or four dollars for a day's work to fill in lean periods, but they were only at the beginning of things, before them lay a future at which they could only guess. The movies would not always be humble, just round the corner lay a prospect far more enchanting and promising than any the "legitimate" stage could offer.

In spite of herself, Mary found herself listening. In the end, she had to admit that she may have had the movies all wrong.

Together they signed a contract. His name, of course, was D. W. Griffith.

The money was not big, about twenty-five dollars a week, but it represented regular work and a steady addition to the family's meagre income.

On her first day, Mary found herself in the basement green-room sitting next to Florence Lawrence. The Biograph Company allowed its players twenty-five cents for lunch. Miss Lawrence either through temperament or forgetfulness, ordered a meal costing thirty cents,

but Bobby Harron, who became a Griffith "star" himself in later years, was acting as waiter and odd job boy, and knew his job; he gave Miss Lawrence her twenty-five cent lunch, Mary noticed, and conscientiously forgot the little extras that would have added the forbidden five cents to the total!

Mary's first role was as an extra in *Her First Biscuits*, but her first real role was in *The Lonely Villa*, in which she played one of the terrified children in the crook-besieged house which gave the film its name. Marion Leonard and Henry B. Walthall had the leading parts. Then came her first starring part—in *The Violin Maker of Cremona*.

She did not have to wait long for recognition; audiences were soon clamouring to know the identity of the girl with the curls who figured as "Little Mary" in so many of the Biograph dramas and comedies, but, though 'A. B.' raised her salary to thirty-five dollars a week, they steadfastly refused to divulge her identity, but Mary was not long in waking up to the fact that she represented a valuable asset to the producers, and accordingly wrote to George K. Spoor, of the Essanay Film Company in Chicago, to ask him if he would sign her at fifty dollars a week. But Spoor thought forty-five dollars was the tip-top limit, and so she stayed on under Griffith.

There were no previews or "openings" in those days, of course. Mary's films were handled just the same as all the other films turned out by Griffith for Biograph. The players appearing in them did not even have an opportunity of seeing the films run through in the studio upon their completion. If they wanted to see themselves on the screen they had to wait until the film was shown at a nearby picture-house and pay for admittance in the ordinary way.

Mary was anxious to see herself on the screen in order to study her acting dispassionately, so, one night when Griffith was keeping the company working late, she made up her mind to forego her supper and slip round the corner to a murky shop-show picture-hall called The Gaiety, where her latest picture was showing.

Even in those days there were local ordinances regarding the admission of children under sixteen to cinemas in certain precincts of New York. Mary was therefore astounded to find the doorman refusing to admit her on the ground that she was too young. She explained that it was one of her own pictures, but he still insisted that she was too young to see it, and no amount of argument would make him yield.

The sequel is just as amusing. Mary vowed that she would never

go to The Gaiety again, and kept her word. A few years later the man who owned The Gaiety the night Mary was refused admission was paying her one hundred thousand dollars a year. He was Adolph Zukor, head of Paramount.

The path which D. W. Griffith trod in his early days was not an easy one, despite the tremendous success of the Pickford films. The directors of the Biograph company did not approve of innovations because they usually entailed extra expense. Once when he took his band of players to a New England village for location shots he was allowed only fifty dollars for expenses. When shooting took longer than he had anticipated and his players had to put up at a hotel overnight, Griffith had to meet the additional expense out of his own pocket.

In introducing the first close up—it was in a free (in more senses than one) adaptation of Jack London's *Just Meat*, which was given the screen title of *For The Love of Gold*—to show that two Westerners sitting over their coffee cups were aware that each had poisoned the other's drink, Griffith ordered the camera to be moved nearer to the players. The cameraman protested. When the studio managers saw the film they also protested. To cut a player in half was inartistic, they insisted. It is said that audiences in the Middle West of America also vented their displeasure at the innovation by shouting, “Show us their feet! Show us their feet!”

Almost from the first, Griffith was striving to make pictures longer than one reel in length. Music halls at first formed a substantial outlet for films, and they demanded a picture which ran for the same time as a top line vaudeville act, namely fifteen minutes. The film reel of one thousand feet, which took fifteen minutes to show, became the standard running time. Comedies, sold to the cheaper halls which demanded only a six or seven minute “turn” were likewise standardised at five hundred feet—or a split reel as it was called.

In the electric theatres it became the practice to cement a few feet of blank spacing to the end of the comedy and then affix another film to the end of it. This saved reloading the projector.

Some of the companies took to sending out complete reels already made up of a comedy, blank spacing (to darken the screen for a few seconds between the subjects), and a travel or interest film to make up the full standard reel.

The practice still exists in “the trailer”, which, affixed to the end of a short film, such as the news or a cartoon, literally ‘trails’ at the end of the reel.

To-day, of course, cinemas have at least two projectors and though the reels still contain only one thousand feet of film each, the projectionist is so adept at switching over from Part One to Part Two, and then back to the first projector with Part Three, and so on, that the audience is never aware that there has been a change from one machine to the other, although, because of the increased speed at which talkies run compared with silent films it now happens every nine minutes instead of fifteen.

When Griffith tried to introduce two reel pictures he met with considerable opposition. He made a drama of the Civil War, a typical early example of his penchant for fighting the South's lost cause over again, and declined to cut it to one reel. The owners of the company at last compromised and released it as two separate stories—*His Trust* and *His Trust Fulfilled*.

He lifted the stories then in vogue on the screen out of the rut into which they had fallen by introducing occasional "classics". With the moral victory of his two reeler to prove his point, he embarked on longer pictures—a version of *Enoch Arden*, called *After Many Years*, in which he introduced the "flash back" to recall past happenings—and, finally, a four reel picture, *Judith of Bethulia*, though an attempt to make *Home Sweet Home* in five reels was abortive—the management compelled him to make five separate stories of it.

By now he had come to the parting of the ways. His *Judith of Bethulia*, which he had regarded as spectacular and lavish, was entirely swamped by the Italian productions which suddenly came on the market. Their acting was theatrical, their plots well-used Biblical stories, and the direction was straightforward in the extreme, but they embraced enormous crowds and were shot against impressive natural backgrounds. They made *Judith of Bethulia* look very modest by comparison.

Breaking away from Biograph, Griffith started in great secrecy on a production which would outvie the Italian epics. Taking his favourite Civil War theme, and a book called "The Clansman", as his raw material, he produced a twelve reel picture, *The Birth of a Nation*, which cost the then unprecedented sum of one hundred thousand dollars.

Working entirely on open air stages, his picture was fast moving, vivid and technically superior to the Italian "supers".

It established Griffith for all time as the master of the silent film.

Appointed producer of a newly formed company, Triangle, he

supervised the pictures of Douglas Fairbanks and made him famous all over the world as an athletic star of the "good, clean American fun" school. More than that, he trained younger men who rose to become the big directors of the later silent film era, teaching and guiding them while they were under his guardianship as supervisor of the Triangle output.

He strained at the leash to make a spectacle which would surpass *The Birth of a Nation*. Consequently, with a greater show of secrecy than ever before, he began work on *Intolerance*. Again, the whole picture was shot by natural sunlight, for, at this time, he had some notion that the sun itself had an indefinable quality which lent itself to the motion picture medium and which no artificial light could equal. Accordingly, if he needed a spotlight effect he would use a mirror, or if he required a beam of sunlight to fall upon a figure he would have his stage partially covered, leaving an opening through which he could direct a shaft of natural light.

The effects were charming and realistic, although, viewed from to-day's standard, the photography and lighting suffered from film stock which was not nearly as fast and fine of gradation as that now in use. Even changes of temperature caused marks to appear on the negative and it became usual to keep a bicycle lamp burning on the tripod immediately below the camera. There was then little or no satisfactory way of superimposing images on the film beyond the straightforward "ghost" effects of Melies. Griffith had no means of printing great sets around his actors on the film, therefore he had to build the sets in their entirety. Thus it came about that huge scenes towered into the sky in the heart of Hollywood, one of the most impressive being Babylon, with walls on which hundreds of extras could look down on the milling thousands below.

The local bus company ran sight-seeing trips just to view these mammoth sets, although they could be seen for miles. They were built without blueprints according to Griffith's suggestions, and the film itself, which embraced four stories (all interwoven, though taking place at different periods of history), and an epilogue, never had a written script of any kind.

To bridge the constant changes from one story to another, Griffith used, first, a woman rocking a cradle, and later, three old women to represent the Fates. This proved disastrous when the film was shown; the audiences followed the four stories although they flashed back and forth on the screen in an almost over-emphasised pattern

of similarity—the Life of Jesus of Nazareth, the reign of Nebuchadnezzar, a modern story of class war, and a story of the conflict between Catholics and Huguenots in sixteenth century France—but they simply could not understand the significance of the symbolical figures which kept appearing on the screen.

So Intolerance failed in America. In Britain it did good business and was highly praised by the Royal family and by the leaders of literature. It was in Russia, however, that it had its greatest success, enjoying a run of ten years.

Lenin was so impressed by it that he invited Griffith to become the leader of the then new Soviet film industry. Griffith declined gracefully.

Nevertheless the young Russian directors profited by his work. Close study of his methods provided the groundwork for *The Battleship Potemkin*, *Ten Days That Shook the World* and practically all of the other great Russian films of the silent period. In short, Eisenstein and Pudovkin took Griffith over—all except his sentimentality—and themselves became, for at least a decade, the acknowledged masters of the film medium.

Things, however, were not faring very well with the master himself. A great deal of his own money had been invested in *Intolerance*, profits which he had made on *The Birth of a Nation*, and, financially, he was almost crippled by its failure. From its ten years run in Russia he derived nothing at all.

An early talkie, *Abraham Lincoln*, did not reveal him as more than a fair director in the new medium.

An invitation to come to London to re-make one of his earlier and biggest successes, *Broken Blossoms*, was accepted but eventually came to nothing, another director ultimately making the picture.

I met him in London, tall, spare, greying, full of old Southern courtesy and happy to attend parties and functions where there was music and dancing. With two sweet young things, one on either arm he brought an almost forgotten aura of gallantry and grace to the dance floor as he showed two girl children of a later age the sweeping delights of the ballrooms of old Kentucky.

On his return to America, the talking picture medium lured him again; he tried a second time with *The Struggle*. Its opening was delightful—youngsters of the first decade of the century talking of that wonderful Biograph girl that you saw on the moving pictures in those dreadful nickelodeons—but from there it declined steadily.

An old-fashioned story of a drunkard's downward career, the picture revealed Griffith's worst side, his over-emphasised melodrama and his mawkish sentimentality, and it received scant attention.

Griffith's mark on the tablets of cinema history is indelible ; it matters not at all that the public failed to realise the real significance of *Intolerance*. The fault was their's, not Griffith's.

And it matters not at all that his talking pictures were not successful ; he created the technique of the silent film medium—he needed no microphone to tell his stories for him. The camera and the editing principle were the only instruments he needed. With them he made film production an art instead of a manufacturing process.

His work still permeates every foot of film which is shown.

Director Alfred Hitchcock summarised Griffith's contribution to the advance of the cinema when he said : " Remember David Wark Griffith ; every time you go to the cinema you enjoy in some indirect but plainly traceable form, the fruits of his labours ; to us who are endeavouring to explore new territories and to carry on his torch, he is the honoured Head of our profession."

XII

THE MOVIES DISCOVER HOLLYWOOD

THE growth of the cinema from a sideshow to a recognised place of entertainment also saw the rise of the big film companies—the Warner Brothers, Carl Laemmle and Universal Pictures, Adolph Zukor and Famous Players (later Paramount), Sam Goldwyn, Cecil B. De Mille, Jesse Lasky, William Fox, and, in Britain, the rise of the big six film companies of 1910 to 1920—the London Film Company (no connection with Korda's London Film Productions of a much later era), the British & Colonial Company, Broadwest, Hepworth, I. Bernard Davidson and Ideal.

As the shadows of the War of 1914–1918 fell across half the world, the moving picture industry moved in two opposite directions. In Europe, faced with war shortages of staff, players and equipment, the film producing business went into a decline.

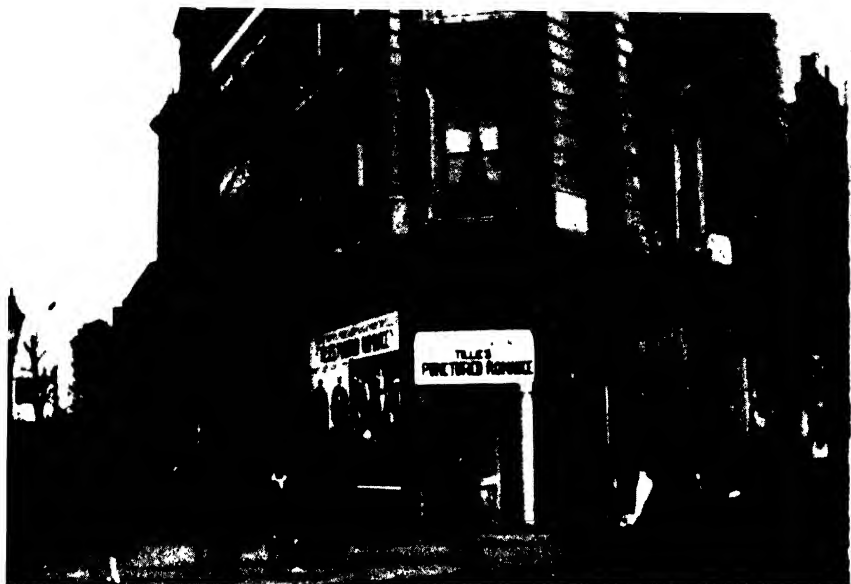
In America, far from the scene of conflict and embroiled in it only when it had all but been won by the French and British, the film business flourished as never before.

Europe was hungry for entertainment as a relief from the horrors of war. Therefore America's overseas markets remained practically unimpaired in all but Germany, Turkey and Austria.

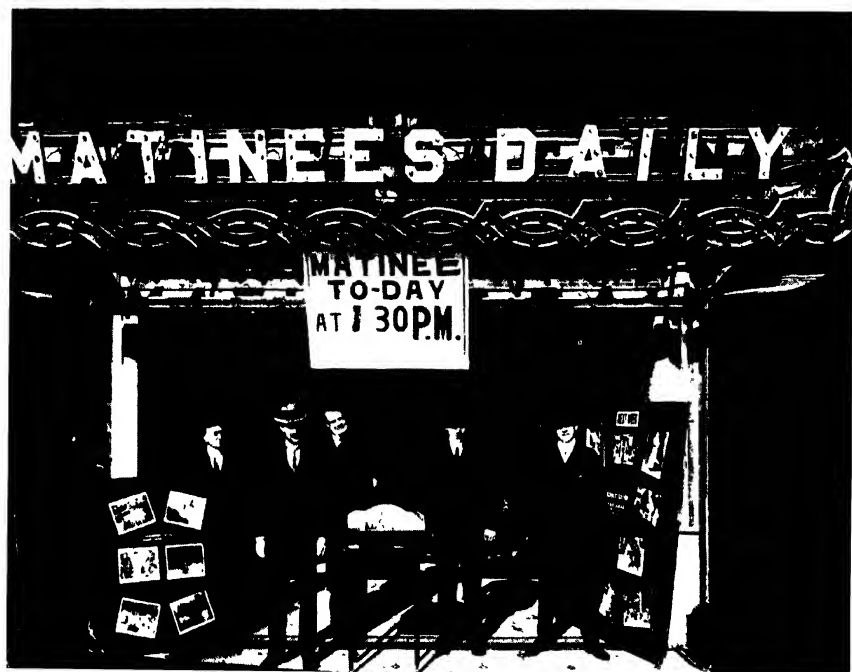
Britain and France, America's biggest film-making competitors, were too pre-occupied with the life and death struggle to have much time for production. As a result, America captured the film market of the world—and held it unchallenged for the next twenty years.

In previous chapters we have met, casually, some of these pioneers of the American film business who led the way. Who were they?

With the exception of the Warner brothers, De Mille and Lasky, they came from the clothing trade. Jewish immigrants from Central Europe, most of them were men who had perforce to get into trades where relatives were already established, the trades which from time immemorial have been regarded as mainly the province of Jews,



Above) A typical "shop show" cinema—the Nelson Electric Theatre in London
 Below) Sam and Jack Warner (right) with their road show of Dante's *Inferno*, 1904





(Left) Lillian Walker and Maurice Costello, the latter the screen's first matinee idol, in *It All Came Out in the Wash*



(Right) G.M. Anderson, world-famous under his screen name of Broncho Billy, in a Western of 1911, *The Sheepman's Escape*, made by the Essanay company of Chicago



(Left) From Cecil M. Hepworth's *Exceeding His Duty*, made at Walton - on - Thames, in 1910, with Harry Royston (left) as the constable

(Right) John Bunny had the name role in a version of Dickens' *Pickwick Papers* made by Vitagraph in London in 1912



(Left) Typical slides shown in U.S. cinemas in nickelodeon days. The plea for a moment in which to change reels was necessitated by cinemas having only one projector

(Right) The "world's sweetheart", Mary Pickford, in an early tear-jerker, *The Old Actor*, made by American Biograph in 1910





The cradle of the art of D. W. Griffith and Mary Pickford - the American Biograph Company's studio at No. 11, East 14th Street, New York, about 1908. The ball-room had once staged cockfights

the clothing business, the jewellery business, the fur business, and so forth.

The entertainment world had always been, in some measure, a happy hunting ground for speculation ; although initial outlay was somewhat high, the possibility of huge returns, if one were lucky enough to have a success, was alluring. Therefore the film business had a great attraction for those who did not mind taking chances if there was a likelihood of getting rich quickly. In retrospect there seems to have been nothing very chancy about it ; people flocked to the cinemas and pennies, dimes and nickels flowed over the box office window ledges, but there was a catch.

Only a few years before the public had had a great craze for roller skating. All over Britain and America roller skating rinks sprang into existence. The boom rode high. But only for a time. Then the crash came. The public suddenly tired of the sport and the rinks became white elephants. (One or two in Britain at least, by twist of fortune, became film studios—the studio occupied by the London Film Company at St. Margaret's, Twickenham, was originally a rink, and so was the British & Colonial Studio in Hoe Street, Walthamstow.)

So those who invested their slender resources in the film business were taking a risk, the risk that the public might leave the moving pictures overnight for a different, and newer, craze.

Those pioneers who fought the Patents Company and emerged victorious, and who now took a chance on production, became the founders of the American film business of to-day.

The Warner brothers, among the first to defy the Trust, now control one of the biggest studios, that at Burbank, California.

In 1896, the eldest of the brothers, Harry, opened a bicycle shop in Youngstown, Ohio. He was an emigrant from Poland and the whole family had arrived in America to find freedom of opportunity. He was thirteen when he started hiring out bicycles. He also did shoe repairs, ran a small grocery shop and a soda fountain.

Despite all these interests, he yearned for adventure. In this his two younger brothers, Albert and Sam, looked upon him as their leader, while their "kid brother", Jack, was happy to follow unquestioningly anything which the others suggested.

In 1903, Sam Warner got a job tending the automatic machines in an amusement park in Sandusky, Ohio. There he encountered something which appealed to him enormously and he hurried home

to tell his brothers about it. It was "pictures which moved". They scarcely believed him—how could a picture move? Yet he insisted that he had seen soldiers marching, fire-engines turning out, and trains arriving, all on a magic lantern sheet. He admitted that they only lasted a few seconds and appeared to be taking place in a downfall of rain, but move they did, and, if they enthralled him, surely other people would be entranced by them. He and his brothers must acquire such a machine.

And acquire it they did, along with a copy of *The Great Train Robbery*.

The results were so gratifying that they shut the bicycle shop and went on tour with their new-style entertainment. In the winter of 1903-4, they looked round for a permanent home for their show, to avoid the rigours of winter touring.

In Newcastle, Pennsylvania, they opened a small theatre with ninety chairs hired from a local undertaker. When there was a funeral in Newcastle, the chairs had to go back to their owner and the audience was compelled to stand. They called their electric theatre "The Cascade".

Harry took charge of the box office, Sam ran the projector, Albert showed the patrons to their seats, and Jack did odd jobs and sang popular airs in a youthful treble to the song slides.

For fifty dollars a week they obtained two complete changes of programme, and, at five cents admission, they made a handsome profit.

Their good fortune did not last long, however. Scores of competitors entered the field and they realised that there was more money to be made out of hiring films to theatres than in showing them. Accordingly they acquired some films and became distributors.

Again they did very well at first. Others were eager to participate in their profits and they admitted partners, and then discovered that they could no longer call their business their own. The cost of freeing themselves was the surrender of their shares in order to withdraw their name. It was a heavy price to pay but they considered their name worth it. They were the Warner Brothers again, but the Warner Brothers without a vestige of a business.

On borrowed money they started again. They had shown films, they had been the middle-men who hired them, now they turned themselves into producers.

Faced with extinction by the Patents Company unless they fought

back, they went into the battle with gusto. As ex-owners of a theatre, they knew what the public wanted. They ground out, as cheaply as possible, films crammed with action.

Soon they joined the trek to the Pacific Coast to build their own studio.

And why the Pacific Coast—why Hollywood ?

The explanation is simple—it was as far away from New York and the writ servers of the Patents Company as the independent film makers who were defying the Edison combine could get. It was also conveniently situated in relation to the Mexican border ; if trouble loomed up, then the film makers simply skipped over the border and remained there until it had blown over.

To say that Hollywood was chosen as the film centre because it had an unrivalled record for sunshine is nonsense. The film makers knew nothing, and cared very little, about sunshine. It was safety they were after. When they discovered the sunshine record it only confirmed the wisdom of their decision.

Before it became the established centre of American film making, Hollywood had been discovered twice by roving bands of film makers, first by David Horsley, who turned a wayside hotel into a film studio, and later by the Selig Polyscope Company, which drifted into Los Angeles round about 1907, and stayed to make pictures on a vacant building "lot" behind a Chinese laundry. Hobart Bosworth, American stage veteran, was in the neighbourhood at the time recuperating from a bad illness, and the Selig director, remembering his implied if not implicit instructions to seize whatever opportunities presented themselves, bethought himself that Bosworth might consent to play in a picture, not so much for the money (which was pitifully small in those days compared with New York stage stars' salaries), but to enliven the enforced idleness of his convalescence.

Bosworth turned the offer down almost out of hand ; he reiterated the old assertion that, to a stage star, an appearance in a film was a tacit admission of failure, but the Selig men had become accustomed to receiving no for an answer and then going back later to see if they could get the sentence revised. Accordingly they went back to Bosworth, and, after assuring him that no one who mattered would ever see the film, managed to sign him for a few days' work.

A noble snow-white horse trekked across the Alkali Desert (which did duty for the plains of Egypt) and deposited its imperial Roman rider on the steps of a lavish Eastern temple built of canvas on a plot

of waste land shadowed by the backs of hoardings and topped by the rough-hewn pine telegraph-poles of the new but expanding little town of Los Angeles. The Roman drama was so much Greek to the Chinese laundrymen, whose premises abutted the "lot", but they would pop out of a door at the back, spit on their flat-irons and stand grinning at the bearers of evil tidings who flung themselves at Bosworth's feet. There are many forms of madness, but this, the smiling bobbing, Chinese laundrymen decided, must be the most insane of all, for did not a company of thirty or forty intelligent-looking men and women go off their heads in unison from sun-up to sun-down, all at the behest of a man with a trumpet and another with a coffee-mill.

The picture, the first of any pretensions to be made in Los Angeles, was called *In the Sultan's Power*.

It was the beginning of an era which was to make Los Angeles one of the most important towns in America and one of its suburbs, Hollywood, a name known to millions all over the face of the earth.

Hollywood was twelve miles from the Pacific, its summer temperature was seventy-five degrees, its winter temperature sixty-two—an ideal spot in which to make movies.

Its original name was Cahuenga; that was in 1770, when the Spanish priests said a blessing over it, and the very first covered-in studio, at the corner of what is now Sunset Boulevard and Gower Street, which David Horsley opened in the very early days, was called Cahuenga House.

From the Mexican and Spanish settlers Hollywood was handed over by treaty to the United States with the rest of California, the governmental price being one dollar and twenty cents an acre.

In 1883, Mr. and Mrs. H. H. Wilcox arrived in Los Angeles and took a drive through Cahuenga Valley, were attracted to an apricot and fig farm, decided to buy, built a house on the land and took up their residence. Later, on a trip to her former home in Kansas City, Mrs. Wilcox struck up an acquaintance on the train with a wealthy woman tourist from England who spoke enthusiastically of her family estate, Holly Wood. Mrs. Wilcox liked the name, remembered it, and, when she returned to Southern California, bestowed it on the farm. Mr. Wilcox, however, thought there ought to be some justification for the title, and accordingly imported two English holly trees, for the woman on the train had said that it was this shrub which had given her family estate its title. The shrubs were planted on either

side of the main gate of the farm and the name "Holly Wood" was proudly painted on a board above.

The holly trees died almost immediately, but the following year the farm was divided in two and one part became, with the passing of years, a village—Hollywood.

The community—it is some eight miles west of Los Angeles—did not receive its official name and charter until 1903, when its 1,400 citizens voted to incorporate. (Curiously enough, the second law passed by the city council was an ordinance prohibiting the driving of more than 2,000 sheep at one time down Prospect Avenue, now Hollywood Boulevard, which is known throughout the world.)

In 1910, Hollywood became a part of Los Angeles and lost its corporate identity. There were times when the city of Los Angeles seemed to resent referring to its thriving suburb as Hollywood, but the name had become so romanticised by its industry that a change was impossible.

The invasion by the film makers was just as bitterly resented by the inhabitants of Hollywood itself, most of whom were retired tradesmen who had invested their slender savings in cheap bungalows on cheap building "lots" or consumptives who were hoping to prolong their span of life in the warm, dry climate.

Both factions applied a contemptuous name to the invaders. They called them "the movies". Later the word was to become the nickname for the films which "the movies" made. To maintain the tone of this restful haven, the hotels and boarding houses added to their signs, "No Dogs", the chill words "Or Actors".

The first film shot in Hollywood, as distinct from the Los Angeles-made *In the Sultan's Power*, was the Nestor Company's *Law of the Range*. Another early effort featured Dorothy Davenport and was called *My Indian Hero*. One of the "extras", playing a rough-riding cowboy, was Wallace Reid, who later became a popular matinée idol of the electric theatres.

D. W. Griffith, with the American Biograph Company, was an early arrival on the Pacific Coast, but he made his headquarters in Los Angeles, in 1910, where he made pictures on an open-air stage surrounded by a fence which offered a grand-stand for all the boys of the neighbourhood who wanted to see a free show.

They were happy care-free days out there in the Californian sunshine; if the pay wasn't high, at least there was not the frantic competition which there is to-day, nor the mechanisation and

rationalisation of the production side by supervisory experts.

Among the first to come out to seek fortune in this newly discovered land of sunshine and promise was Cecil B. De Mille.

It was late in 1912, at the age of thirty, that De Mille decided to enter the film business. He came of good family, his father being a noted playwright and his mother a tutor of English at universities.

Two friends were willing to help him with plenty of enthusiasm but little money—Jesse L. Lasky, ex-gold prospector and music-hall cornet player, and Lasky's brother-in-law, a glove salesman named Sam Goldfish, better known to-day as Samuel Goldwyn.

Their capital was only a few thousand dollars. They approached D. W. Griffith to direct their first production, a popular melodrama from the stage called *The Squaw Man*, to star in which they had hired the matinée idol of the original, Dustin Farnum.

Griffith merely laughed when he heard how little they were worth, so they tried De Mille's elder brother, William, a famous stage producer. He, too, refused. But in declining to lend them capital he kindly promised to keep some money ready to send them to pay their fares home from the wilds of Arizona when their venture met with financial disaster.

So it fell to Cecil B. De Mille to direct their first effort. His pay was eighty dollars a week, and, fearing the Patents Company's strong-arm men, he carried a revolver in a holster strapped round his waist.

Not until three or four years later, when the courts ruled that William Friese Greene was the inventor of the cinema, was he ever far from his gun.

He was headed for Flagstaff, a Wild West town in Arizona, but when his little company of players alighted it was pouring with rain, the prairie was desolate and the township was on the other side of the railway line. De Mille never saw it—the train was in the way—so they quickly re-boarded their car and went on to the end of the line—Los Angeles, and from there found their way to Hollywood.

A railway line occupied the centre of its one dirt-track road. There was a grocery shop, a few houses, an abandoned road-house, a great many Indians and Mexicans and cowboys, two restaurants, a hotel without a licence, and a shop which combined tooth paste, medicines, ice-cream, milk and newspapers as its business mainstays. There was also a sizable barn.

There was, too, a strong antipathy on the part of the local residents towards people who made films. The local bank, outside which the

stage coach still tethered its horses to a hitching rail, declined the privilege of handling Cecil B. De Mille's banking account with thanks.

The barn caught De Mille's eye. Its rent was cheap but the landlord wanted to retain half to house his horses and a trap. Accordingly, a bargain was struck, though every time the landlord washed his stables the water seeped under the partition and De Mille had to beat an ignominious retreat. One day he was entertaining a young man with money whom he was hoping to interest in the rocky company when the landlord carelessly threw a bucket of water right through the window, drenching the Cræsus and effectually dampening all De Mille's hopes of obtaining new capital.

And capital was a pressing problem. In Hollywood, De Mille had free mountains, plains, rivers, deserts, palm trees, sunshine, and even snow-clad hills, but no money. In desperation he asked his star, Dustin Farnum, if he would forgo his salary and take five thousand dollars' worth of shares in the company instead. Farnum firmly said no. He had no means of knowing, of course, that only four years later he could have sold them for two million dollars.

Somehow the picture got under way. It took eighteen days to photograph, and employed twenty-two people, including ten actors. In all, it cost ten thousand dollars more to make than De Mille possessed, but Sam Goldfish had been busy in New York selling the picture to theatre owners simply by his powers of glowing description. His confidence was only partially misplaced. De Mille was a born showman. He knew how to cram movement, forceful drama and nerve-shattering sensation into every foot of film he turned out.

On *The Squaw Man* he expounded every ounce of this creative energy. His stage was a wooden platform built on the land behind the barn, his scenes of saloons and drawing-rooms were flimsy flats open to the blazing Californian skies except for butter-muslin stretched over the top to diffuse the light.

Yet, even when he had finished shooting the last scene of this story of a high-born Englishman in the Golden West who befriends an adoring child-like Indian maid and becomes a social pariah, he was still not out of the wood.

"Very soon after we started, trouble brewed with the Patent Company. They made desperate efforts to force us out of business by giving our employees bribes. Before I completed the last scene, an attempt was made to burn down my stage. Then, when that

failed, there was never-ending interference with the development of our negative.

"Then came the most terrible discovery of all. When we screened the completed picture for the first time, it leapt about all over the place. The actors' heads appeared at the foot of the screen and the feet at the top. Scenes appeared to shut up like concertinas, ranges of mountains rolled like breakers on a beach, and the hero occasionally appeared in two places at once." He was certain he was ruined. In desperation he took it to a friend, Ira M. Lowry, who was an expert. He shook his head gravely over it, though inwardly laughing at De Mille. He knew what the other had done.

Using bootleg cameras, no two of which were alike, in an effort to avoid further trouble with the Patent Company, each machine had registered the sprocket holes, which perforate both margins of the film to guide it through the projector when it is shown, at differing widths apart. When all the scenes were collated and cemented together they "changed gear", so to speak, every few seconds on the screen. Lowry merely cut the sprocket holes off, five thousand feet in length, and glued on a new set. Then it ran smoothly.

De Mille was overjoyed and made his inevitable offer of an interest in the company as a reward—a thousand shares. Lowry declined. He asked nothing for his one night's work. Thus, he too, missed the chance of becoming a millionaire.

The first professional showing of the film netted forty dollars. Soon, however, its fame spread. It played in thousands of electric theatres and earned just over a quarter of a million dollars.

The news spread. Hollywood was the place to make pictures. Almost overnight it became a boom town, the mecca of all movie makers. The price of land soared from less than two dollars an acre charged when De Mille arrived, to several thousands for coveted sites. Studios sprang up on every hand, while the residents fenced in their bungalows in disgust. The population increased from five thousand to one hundred and fifty thousand in a few months. But De Mille still led the field. He took up the production of vastly ornate films, replete with dazzling feminine gowns.

Religious themes became irresistible. Defying the taboos, he filmed *The Ten Commandments*, then depicted Christ in *King of Kings*.

Critics denounced him, but the public, then as now, loved him. With *The Crusades* and *Cleopatra*, De Mille actually taught them a little history.

He has re-made *The Squaw Man* twice since those days, but though fast trolley cars rumble and traffic lights flash where cows used to graze on the grass verge beside his barn, the barn still stands.

True, it has been moved, yet every board and nail remains intact, even the window through which the water was thrown over the distinguished visitor. It is now the Paramount's gymnasium.

It is the foundation stone of Hollywood and its moving picture industry.

Carl Laemmle, who founded Universal, was another of the pioneers who was faced with extinction by the Patent Company, and who had to become a producer in order to stay in business.

One of thirteen children born to a poor estate agent in Wurttemberg, in South Germany, he emigrated to the United States on his seventeenth birthday, borrowing most of the 22 dollars which it cost for a steerage ticket. He became assistant to a chemist, washing bottles and running errands, and followed this up by becoming a packer in a Chicago warehouse. In those days he walked to work to save tram fares and shared his room and bed with a colleague to save expense. At one period of his colourful life, "Uncle Carl" (as he became known throughout the industry) once played a super in *Julius Caesar*, presented by a local repertory company, for which he was paid at the rate of fifty cents for each performance. In his "spare time", which started at four o'clock in the morning, he was out delivering newspapers from a hand-cart. Finally he entered the clothing business, and made such rapid progress that he decided to become his own master. At the last moment he awoke to the fact that astute men were making money—and big money at that—out of shop cinemas. He plunged into the moving picture business by opening "The White Front", a picture-hall in an empty shop in Milwaukee Avenue, Chicago.

Within two months he had a second theatre, "The Family Theatre".

From "The Family Theatre" sprang his film-hiring business. With the outbreak of the Patents war he, too, became first a hirer of films and then, perforce, a maker of moving pictures. The Independent Motion Picture Company, or IMP for short, ultimately gave place to Universal Pictures and became one of the most powerful in the business.

It was the sporting chance of a gamble which also marked the founding of the old Keystone Company, makers of comedies whose

name became almost as synonymous for slapstick as did Fred Karno's.

The Keystone Cops, a harum-scarum police force which was forever careering madly down roads in zig-zagging motor cars, with policemen falling off the patrol waggon and climbing aboard again, a police force which, in its time embraced many actors who later became famous, such as Ramon Novarro and Harold Lloyd, was the hallmark of these violent comedies.

In their heyday, Keystone comedies starred such famous comedians as Chaplin, Buster Keaton, Roscoe (Fatty) Arbuckle, Ford Sterling, Ben Turpin, Harry Langdon, Wallace Beery and Chester Conklin, while their leading ladies included Mabel Normand, Gloria Swanson, Betty Compson, Marie Prevost, and dozens of other comely young women who later rose to a more imposing stardom in straight drama or sophisticated comedy.

Keystone was founded by Adam Kessel, a bookmaker, who, it was said, was put out of business by a law which, in 1908, prohibited betting on the New York race tracks. With no business and plenty of time for memories, Kessel recalled a loan which he had made to an acquaintance and went to collect it. He found his debtor busy in a small office surrounded by tins of films and learned that there were great profits to be made for loaning out films on hire. Kessel decided to get into this new form of gambling and took into partnership another bookmaker named Bauman. In a horse trap they would tour the nickelodeons and offer their wares for hire.

They, too, fell victims to the Patents Company. The cutting off of their supplies of pictures forced them to start up as producers. Their first picture, *Disinherited Son's Loyalty*, cost two hundred dollars. They then made a jungle film with a stuffed wolf hired from a taxidermist and embarked on an outdoor epic called *A True Indian's Heart*. From the picture of a bison on an American dollar bill they got the idea of calling their films "Bison Life Motion Pictures". Later they amalgamated with a travelling Wild West show, known as the 101 Ranch Show and made cowboy and wild animal pictures, shortening the name—quite inexplicably to English audiences—to "101 Bison".

Faced with competition by Selig's Zoo films and the tremendous number of cowboy and Indian pictures, they turned their attention to comedy and started the Keystone Company. This trade name was, in turn, a borrowed one; it came from the keystone of an arch, which was the insignia of one of the principal American railways.

To Mack Sennett, erstwhile American Biograph comedy character actor, was entrusted the production of the new type of picture.

Sennett, bluff ex-boiler maker, and as Irish as they come, had always had the police in mind as a suitable comedy subject. In the American Biograph studio he was always pestering D. W. Griffith to allow him to make films about policemen. Griffith always brushed his suggestion aside. With the formation of Keystone, he saw his chance. The Keystone Police came into being.

At first it boasted only two or three members, but it grew and grew. Ford Sterling, reigning comedian on the lot, was its police chief. His style was simple—boiling rages, hysterical leaps in the air, and a tremendous wagging of his goatee beard. He was considered to be very funny because of the enormous energy which he put into his clowning.

Every Keystone comedy ended with a chase. Probably Sennett was the first producer to discover a formula and to stick to it. His recipe was simple but effective; first he guyed the stock situations of melodrama—the girl driven from home or the mortgage being foreclosed on the old homestead—by introducing incongruous elements, such as twenty waddling geese following the girl out into the snow, determined not to be left alone, or the town band conducting a rehearsal in the room while the landlord foreclosed.

In every comedy, too, was a battle royal in which pies were flung by all the characters. The business became traditional; one character must duck before an oncoming pie and a mayor in silk hat or dowager in pearls standing immediately behind the ducker received the pie full in the face.

It was called custard pie comedy, but, in actual fact, the pies were seldom made of custard. On the baking open air stages flies were numerous and settled on the custard pies when they first appeared. Fastidious patrons of the penny picture halls did not like the greatly enlarged flies which crawled on the pies in the close shots. Cheaper, and less enticing to flies, were pies adorned with whipped-up soap lather. Blackberry pies also came into vogue; they photographed better and the flies did not show.

The open air stages of the Keystone lot were indeed a sight. Sennett liked to see pigs running around the place, and he also had more land than he needed so he put some of the staff to growing vegetables between building scenery. At mid-day on Saturdays a stall went up near the exit gate and the staff could buy cut-rate

potatoes and greens for their Sunday dinner table from the boss of the studio.

It was on this lot that Charles Chaplin made his film début. To-day, the old plant has been completely superseded by the big new Republic Studios, though there is still a memory of the old place in that the new stages are named after the Keystone players—"The Mabel Normand Stage", "The Phyllis Haver Stage", and so on.

Chaplin's contribution to the cinema, almost as great as D. W. Griffith's, has often been distorted by his most fervid supporters. Chaplin brought a tremendous gift of pantomimic comedy to the screen; he raised it from crude slapstick to the cleverly satirical. Technically, his films are still crudely produced.

It is a mistake, however, to think that he brought his great comedy gift direct to the screen. In his first pictures he was not the woebegone little tramp but a brash young man who went about administering kicks to the seats of other people's trousers, a lively masher who twirled his hat, stick and cigarette. Only through a succession of pictures did he develop the character, and then only after experimentation with the man-about-town make-up in *Pay Day* and after appearing in parson's garb in *The Pilgrim*.

His many marriages have also given rise to the legend that he is a lady's man. Perhaps—yet, if one delves into his life story, one realises that those many romances of his may, to the psychologist, be the subconscious striving after the one, lost, love of his life.

Chaplin was born, Charles Spencer Chaplin, on April 16, 1890, in a gaunt, early Victorian house, one of a dreary row, in Pownall Terrace, Kennington Road, London. At the time of Charlie's birth his father was twenty-four, a singer of sentimental ballads, most notable of which was *As the Churchbells Chime*, which he rendered, in a bulgy dress suit, at minor music halls and smoking concerts. He died when Charlie was a schoolboy of twelve attending the St. Mary-the-Less Church School at Kennington.

His mother was a professional singer and dancer whose stage name was Hannah Harley. The little family was so beset by poverty that Charlie, at the tender age of eight, had already been clog dancing up and down the country with a troupe of boy dancers known as "The Eight Lancashire Lads".

Part of his early boyhood was spent in Paris. That was before his father's death when the latter had a long, badly paid job in a café-cum-music-hall. The infant Charlie knew what cadging scraps

meant ; he was seeing men and women touching the depths of poverty.

And soon he knew stark tragedy. His mother's mind became clouded. His father's death only served to hasten matters. The authorities were constrained at last to intervene.

The scene in *The Kid* in which Jackie Coogan was torn from his foster-father, Charlie, by an official, happened to Charlie, but he was the child and his own mother was the other participant in the real-life scene. To the day of her death in the luxury home in Hollywood which her devoted son provided later, Hannah Harley never knew that her boy was the most famous actor in the world.

Charlie, then, was taken away and thrust into a workhouse orphanage at Hanwell. There he spent perhaps the bitterest and most friendless years of his whole life. Yet this district now boasts the only street in London named after a film star, Chaplin Circus.

School-leaving found him attempting the only means of livelihood he knew. He secured the part of Billy the pageboy in the play, *Sherlock Holmes*, starring William Gillette and Irene Vanbrugh. That was at the Duke of York's Theatre in 1905, and Charlie was fifteen.

After a few music-hall engagements he joined his brother Sydney in Fred Karno's comedy company. They rehearsed in a hall adjoining the Montpelier public house just off Walworth Road in South London, a hall which later became an electric theatre. Chaplin's talent for pantomime developed amazingly under the tutelage of the robustly comic Karno, who had assembled a school of slapstick comedians among whom the Chaplin brothers, Stan Laurel, Harry Weldon and Will Hay were destined to become widely known. A great deal of fanciful nonsense has been written about Charlie's instantaneous success as a Karno comedian. Here are the facts as Karno told them to me :

"The Chaplin brothers got £3 apiece in those days. Charlie was never my star comic. When he left me he was earning about £15 a week. He always seemed crushed in those days. When I offered him the lead in my sketch *Jimmy the Fearless* at the Alhambra, Bradford, he was frightened to do it, so I gave it to Stan Laurel instead. He went on tour in America for me two or three times.

"All the film people were after my boys because we used dumb show a lot, which is what silent pictures demanded. He was deaf to them for two years. At last they got him. He was playing in Oil City, Pennsylvania, and they offered him £30 a week. Alf Reeves,

my manager, told him frankly that was more than I would ever pay him, so he accepted and went to the Keystone company in Hollywood on a forty-week contract."

Happiness, despite double salary, was still beyond Charlie's grasp when he entered pictures. He was suffering badly from an unrequited love affair. And it was one of the biggest loves of his life for it was his first—a tender, poignant adoration for a London dancing girl who refused to take his declaration seriously.

Her name was Hetty Kelly. He had met her in the wings of a Liverpool music-hall when he was barely twenty. That week he had been in Karno's roller-skating skit and pretty, brunette Hetty Kelly was one of a troupe of girl dancers in the same show. Charlie fell in love at first sight. Hetty wasn't sure.

Before he could persuade her to marry him she left London for a two-year engagement on the Continent. When next he met her it was by chance as he was crossing London's Trafalgar Square. She was just off to America. By an ironic touch, when he later went to America, she had returned to England.

When everyone was talking of Charlie as the new funny man in the Keystone films during the first Great War, Hetty Kelly wrote to him and told him to be sure and look her up when he came to London. But he did not see London again until 1921. At Southampton Hetty's brother, Arthur, was waiting to greet him. "How is Hetty?" were almost the first words Charlie uttered. Arthur Kelly looked away—"I thought you knew. Hetty died two years ago."

Mack Sennett saw Chaplin in *Mumming Birds* in New York and stored his name in his memory. Later he engaged him. But Sennett saw Chaplin only as an Englishman. Accordingly he was dressed for his first role, that of a newspaper reporter, in the frock coat, top hat, gigantic cuffs, monocle and weeping moustachios, of the English dude of popular American 1913 imagination.

The picture was called *Making a Living*. Chaplin was so bad in it that most of it was scrapped and the second half of the reel was devoted to an interest picture on tuna fishing.

The Keystone Cops, with Ford Sterling as their star, sensing a rival in Chaplin, were secretly pleased at his disastrous first effort. They told Sennett that the English lad was too restrained for films, nevertheless Sennett decided to give him another chance.

The newcomer was allowed to choose a costume of his own devising. "I wanted the clothes to be a mass of contradictions,"

Chaplin has said. "The big, turned-up-toe boots were the most important of all, for the 'little fellow' wears an air of romantic hunger, forever seeking romance, but his feet won't let him."

Out on the stage Chaplin played a scene in his own way. From the stage hands came a tremendous outburst of spontaneous and generous applause. Ford Sterling heard the ovation. He knew what it meant. His day was over.

Let us take a look at the Hollywood of those rip-roaring days when the uncrowned kings and queens of moviedom came down the streets of a morning, with overcoats over their pyjamas, to get bottles of milk and morning papers from the corner drug stores. The few players who really did boast automobiles spent most of their leisure (in between authorising statements to the Press that they lived for their art alone) trying to get the local garages to jack up back axles and fit new tyres, what time they blasphemed at the six-inch pot-holes in the cart-track roads which led to the sprawling movie towns where they earned—not the thousands of dollars a week of the publicity departments' fevered imaginations—but anything from twenty-five to two hundred dollars according to how green they had been when the front office at the studio had persuaded them to sign a long-term contract.

Casting was carried on in the bar of the Alexandria Hotel then. Five o'clock was the recognised hour for cocktails, baked ham in hot rolls and the allocation of parts. Everyone who happened to be disengaged made for the Alexandria and tried to catch the eye of a director. It was the centre of the movie folks' social world. Everyone thought, talked and lived movies; outside of the Alexandria bar and Los Angeles the world did not exist for the people of shadow land.

The Hollywood Hotel was a step higher in the social scale; Thursday nights there saw a dance at which all the leaders of the movie colony, even including the Pickfords, could be seen enjoying themselves after a hard day at the studios.

For those directors who did not want to stand drinks to actors at the Alexandria Hotel, there was an accommodating grocer's shop where photographs, together with their original's names and addresses, were pasted on the wall. It was a rough and ready casting directory. The film producer, buying his groceries, could pick out from the portraits the people he needed for a new film which he was casting.

Such was the simple Hollywood of yester year.

XIII

VOICES IN THE WILDERNESS

IF one had laid one's ear to the ground between 1901 and 1910 one would have heard the sound of things to come—the talkies, though no one at that time was taking them seriously. They were merely interesting additions to the cinema's programmes of silent films.

As early as the first year of the century the Cine-Phono-Matograph made its appearance. It was one of the then new gramophones using discs instead of cylinders and was played in time to the pictures on the screen.

At least, that was the idea ; in actual practice film and disc seldom kept in step for more than a few seconds. After that it was a matter of chance, and audiences took a sporting interest in the race between the projectionist and the man working the gramophone in the orchestra pit.

The films comprised selections from the repertoire of the Royal Italian Opera, Paris, and items by Vesta Tilley, singing *The Midnight Sun*, Lil Hawthorn, American comedienne in *Kitty Malone*, Alec Hurley in *The Lambeth Cake Walk*, and so on.

They enjoyed a mild success and soon several film makers were turning their attention to talkies of this kind.

Ellaline Terriss, Ernie Mayne, Marie Lloyd, and many other popular stage and music hall idols of the day, went to the studios of Hepworth, Barker, Clarendon, Gaumont and The Warwick Trading Company, to appear in these short films.

Every Friday saw the Hepworth studio at Walton-on-Thames turned over to the making of a talkie, although here the startling idea of using any film actor to mouth the words of a popular ditty sung on the record by a famous star of the halls was often resorted to.

The synchronisation devices were gradually improved. The most successful, though drastic, was to tear up the floor of the theatre and to bury under it a shaft which drove both projector and gramophone.



(Above) R. Henderson Eland as Christ in Kalem's *From the Manger to the Cross*

(Below) *The King of the Jungle* is the title of this Selig "Zoo" picture





D. W. Griffith (*standing under camera*) is directing a scene from one of American Biograph's films made when the company had migrated to Hollywood. Under the camera a cycle lamp burned in order to keep the film in it at an even temperature ; film stock, in the first two decades of the cinema's existence, was so susceptible to extremes of temperature that it often generated static electric discharges which left a tree-like pattern on the film. To maintain an even cranking speed- cameras were not then motor-driven – it was customary for the cameraman to hum a waltz while he turned the handle



Above) From *The Birth of a Nation*, D. W. Griffith's historical masterpiece
Below) Mary Pickford (left) in Griffith's *The Female of the Species*





Above) The Lublin Company's open-air stage prepares for action



(Above) Butter muslin is unfurled over the scene to diffuse the sunlight

(Below) A scene is shot. Note the megaphone and soulful violinist



phone from the same motor. Another employed a dial and pointer photographed in the bottom right-hand corner of the scene in the studio. A dial and pointer were also fitted to the gramophone and the man in charge of the latter was supposed to keep his pointer in synchronisation with that shown on the screen. Sometimes he succeeded, but more often he did not.

The chief drawback to all these immature talkies was the smallness of the voice coming from the gramophone. The pictures were more than life size but the sound certainly was not. To overcome this all kinds of freakish devices were resorted to in order to get volume, for this was, of course, long before the days of amplification by radio valves.

The Gaumont Chronomegaphone actually used compressed air to blow the voice out into the audience. Another used scores of telephone receivers placed all round the auditorium.

The latter was installed throughout one big circuit, Provincial Cinematograph Theatres, and one of the high spots of its temporary vogue was a forty-minute version of *Faust*. At the London Hippodrome five talkie shorts were included in the bill for eighteen months, and Terry's Theatre in the Strand—a chain store stands on the site to-day—was given over exclusively to Hepworth's talkies for several seasons.

But, taking it all in all, the early talkies were a failure. They began to bore audiences and, before the outbreak of World War I, the cinema industry refused to countenance any further developments, although experiments continued in America and several early stars—Jack Mulhall, Gladys Hulette and Rex Ingram among them—appeared in items which were still being shown on the Continent as late as 1922.

There was also one attempt in New York to synchronise a full length film with a musical accompaniment on discs. Otherwise, the talkies were dead by 1914.

A great pity, because, unknown to cinema audiences, Eugene Lauste, the man who had worked in the cinema-cum-stable in Soho, in the dawn years of the electric theatre, had, by 1913, perfected the sound-on-film talkies which we have to-day.

The inventor carried out his work in a typical Brixton villa. His workshop was not large. To finance his experiments he had to sell many items of expensive electrical equipment and he spent many weary months trying to convince people that he really could do what

he claimed, namely to *photograph* sound. At last, however, he persuaded the Press to attend a demonstration.

Here is a contemporary account of this epoch-making event in the world of entertainment as Lauste described it :

" All about the scenery there are scattered microphones—little receivers. They are hidden among the flowers on a table near to which the heroine, say, is speaking. You can hide them among the bushes in a garden scene. Each separate microphone has a radius of nearly forty feet, and is so sensitive that it can easily record and transmit the sound of a match being struck.

" The next process, the photography of sound by means of light, is a highly technical one, but is well known to scientists. It can be summed up, however, in the statement that the shorter or longer sound-waves make marks of varying size on the film with which the microphones are connected, and which is doing the double work of recording pictures and sounds.

" A special film, double the width of ordinary film, is used. The left half, when the film is complete, bears the ordinary series of instantaneous photographs. On the right half you can see a jagged line, each twist of which records a separate inflection of sound.

" This film, when completed, is put in my new projector to be shown, the wave of light which pierces the sound side of the film afterwards passes through a special apparatus of my own invention.

" This is composed of tiny bars of a substance—exactly what it is must remain my own secret. These bars are so small that the eye can only just perceive them. The action of the rays on them is to make them swell to an infinitesimal extent so that they touch.

" When these little bars touch an electrical sound-wave is communicated to the apparatus working the megaphone. According to whether the light waves make the bars touch for a shorter or longer period, the tone of the sound-wave varies".

Lauste's invention had all the essentials of the present-day talkie but lacked an adequate amplifier for putting the sound over in a theatre. Instead, we are told, " these electrical sound-waves open or shut tiny valves. As these valves open, a current of air from a pump passes through, and catches and intensifies the sound made by the electrical wave. The increased sound is then transmitted through the megaphone to the audience."

The reporter who chronicled this " story " gave it as his opinion that the invention would double the attendances " already ten shows a year per head of the inhabitants of the British Isles " (!) and give the film the one thing it had hitherto lacked—speech. His prophecy was to come true, but more than ten years was to elapse before even the dawn of its fulfilment was in sight, and Eugene Lauste's invention

suffered the fate which has befallen so many of the dreams of picture pioneers.

Despairing of interesting British capital, Lauste gave up the unequal struggle and took his invention to the United States, thinking the newer land might be more appreciative, but his reception there was ill-timed. He left Britain up to its neck in World War I; within a year of his arrival in America that country was likewise getting ready to enter the conflict.

By the time talkies burst upon the world in the late '20's, many of Lauste's patents had lapsed. However, it is heart-warming to record that he did not end his days, like so many other film pioneers, in want. The American cinema industry treated him with consideration and his old age was spent in comfort and self-respect.

In the era which followed the days when Lauste used a Brixton back garden for his talkie stage, the film industry became more interested in musical accompaniments for films than in synchronised speech. In America, Erno Rapee published his *Motion Picture Moods*, a volume which listed practically every emotion and every setting and gave the titles of those musical compositions which, in the opinion of the author, reflected the appropriate "mood" of both. Love, hate, Chinese atmosphere, Paris, temptation, anger, all were catalogued and, opposite to each, was named one or more suitable musical "selections". It became the Bible of all orchestra leaders. One ran the new films through at rehearsal, all the time turning up the appropriate "pieces" in the book, then hunted them up in one's musical library and strung them together to form the accompaniment.

The result was not so hackneyed as one might imagine. The public had already wearied of *Hearts and Flowers* for every wistful love scene and the *Post Horn Gallop* for every chase. Rapee gave a great deal of thought to the compilation of his book, for he was himself the leader of a small town cinema orchestra.

About this time, too, disused chapels were bought and converted for use as cinemas. In some of them the organ was included in the purchase price. The small exhibitors found them, as they thought, invaluable as one-man orchestras—just one man could fill a theatre with a tremendous volume of sound, and what sound, impressive, rolling waves of it that made the walls tremble.

Thus was the cinema organ born. Cinemas which were not converted chapels and had no organs fell victims to the craze, and very soon organs were being built especially for sale to cinemas, organs

which could trill like birds, boom like drums, chatter like castanets, tinkle like sleigh bells and bray like the ass. It was only a matter of time, and public acclaim, before the console came into view, with the organist already seated at it, on a lift, and glass panels surrounding the instrument were illuminated by ever-changing colours.

Between the first immature talkies and the organ with the console bathed in coloured lights came the birth of the serial.

Series pictures, as distinct from serials, are almost as old as the photoplay itself. G. M. Anderson, as Broncho Billy, played the same character for years. Helen Holmes, known as The Railway Girl, played a young woman whose destiny was always bound up with Down Specials and Fast Freights. Tarzan and Sherlock Holmes have also been on the screen, with a few interruptions, for the past thirty years. All of these, however, appear in episodes complete in themselves, whereas the true cliff-hanger, to give the serial its trade appellation, ends with the hero or heroine in a situation so fraught with peril that there appears to be no hope of their survival. They do, of course, survive, and I use the present tense because, contrary to general belief, the serial film still flourishes, though to a more modest extent, as of yore.

The first serial films in America were born of a newspaper circulation war. In this country and in France, the "continued in our next" film had had quite a vogue with *The Great London Mystery* and *The Exploits of Arsene Lupin* before the Americans raised serials from their lowly status and made them one of the most important items on the average cinema programme for several years.

At Walton-on-Thames, Hepworth featured two little girls, Chrissie White and Alma Taylor, in a series called *Tillie the Tomboy*. Both children were destined to become famous adult stars of the 1920's. In New York, however, the Edison Company made a modest sensation with a series called *What Happened to Mary*, starring Mary Fuller.

A newspaper circulation manager noticed its popularity and hit upon the idea of running a story as a serial in his newspaper and, by arrangement with a film company, invite readers to see the episodes brought to life on the screen of their local cinema each week.

It was not long before his idea was copied. The American newspaper barons started pouring thousands of dollars into newspaper

serials and their film counterparts in order to lure readers away from rival sheets.

This mattered nothing at all to anyone outside of America, but film-goers reaped the benefit the world over for the serials were, for their day, better written than most two-reel dramas and better produced than the average short picture.

There now came into existence the great "queens" of the serials, the most famous being Pearl White and the second undoubtedly Mary Pickford's sister, Lottie Pickford. They had many rivals but few stayed the course as long as Pearl White and Lottie Pickford. Pearl White got away to a good start with *The Perils of Pauline*. Lottie Pickford, however, was no mean rival in *The Diamond From the Sky*. The only serial "queen" to survive on the screen to-day, and that in character roles, is Billie Burke.

Most serials ran for twenty weeks, by which time the heroine had suffered just about all the perils the scenarists and the newspaper serial writers could think up.

A technique and a jargon grew up around the making of the serials.

It was permissible to cheat a little at the end of each episode. For the sake of the thrill one could actually hurl Pearl White into a volcano, continuing next week with a shot which was not quite so advanced, merely showing the heroine being saved just before the rope to which she was clinging to an airship, and which the villain was contriving to have gnawed through by a rat, actually broke and dropped her into the boiling crater.

On the technical side it was the practice to use models fairly extensively for dams bursting and aircraft crashing, and in the dangerous high spots it was not uncommon to substitute a male circus daredevil, attired in women's clothes and wearing a blonde wig, for the heroine.

Into vogue came the trade name of cliff-hanger and the scenarists called the dangerous situation at the end of each instalment the weenie, and the rescue which started the following chapter, the take out. No one, to this day, can explain the derivation of weenie.

The Exploits of Elaine remains the most famous of all serials. Its mystery-villain, The Clutching Hand, became both a byword and a catchphrase. Pearl White, who had started modestly as a child performer in a touring version of *Uncle Tom's Cabin*, and who hailed from the Middle West, became world-famous through this one rôle

alone. Unlike most of her contemporaries she had the good sense to live modestly, in a three-room flat over a Broadway restaurant, and to salt away most of the four thousand dollars a week which she earned. She also had the good sense to leave pictures as soon as the serial vogue waned. It was announced, dramatically, that she had renounced films to go to France to become a nun. And so she did, although she remained in the convent only a few months. Then she appeared at a Montmartre theatre and made personal appearances in Asia and Africa, earning, it was rumoured, as much as £600 a week even in the more outlandish spots.

With a comfortable fortune to draw upon, she became a popular figure on French racecourses and earned a reputation as a society hostess. When she died in the American hospital in Paris, the newspapers brought her name back into prominence and hinted both at a broken heart and a body which had been mangled in the cause of movie thrills. This was nonsense. The cause of her death was an ordinary liver complaint, but that, of course, was not interesting enough for headlines.

Although one or two of her films were made at Saint Augustine, Florida, Pearl White was practically unknown in the studios on the Pacific Coast except by repute. Nearly all of her films were made in New York studios, studios at New Rochelle and Fort Lee. She was no participant in the early Hollywood era, an era when the fan magazines painted a picture of the film capital as a modern Babylon though, in fact, most of the studios were cheaply constructed of clinker board and stood amidst the open tracts of land for sale, the merciless Californian sun drying the surrounding grass and weeds to tinder, days when the companies who made the movies were wont to spend the long, hot afternoons in wondering if their chiefs in New York had forgotten them.

Every week they delivered films at the Los Angeles station for despatch by rail to their head offices. Once or twice a year the boss of the company would arrive from New York on a tour of inspection. It was a welcome break in the monotony of churning out movies on the sun-baked stages. The boss fired the incompetents and awarded rises to trusted servants; thus grew up the old film industry custom of yessing the boss, and yessing included sending a band to the station to welcome him, the displaying of banners of welcome, and the laying down of both actual and mental drugget to soften his footfalls on life's hard pavements.

Sometimes the boss's managerial decisions were curious, nearly always they were fraught with sensation. One executive visiting the Universal stages made bitter complaints of poor photography. The cameramen protested that the directors made them shoot regardless of poor light simply to keep up to their schedules. The chief then ruled that the cameramen were to be the final arbiters of the actinic quality of the light, and, to this end, they were given a flagpole and a flag, the latter bearing the one word "Shoot". When this was hoisted the directors could go ahead, but, until such time as the cameramen had decided that all was as it should be with the sunshine and their flag broke at the masthead, not a camera turned on the lot.

Of all the Hollywood lots, Universal was then the most colourful.

It called itself Universal City although it was two hundred and thirty acres of open land situated on the Val Providencia ranch at Edendale a few miles north of Los Angeles. The road to it was rutted and unmade. Two years went to its building and, when it was finished, it gave the unsuspecting wayfarer who chanced upon it the surprise of his life, for, in the valley in the shadow of the wild hills he first came upon a dazzling stucco and plaster triumphal arch such as marks the entrance to a fun fair. Behind this sprawled buildings in every known style of architecture, from Scottish croft to Japanese tea house. Many buildings had different styles of architecture on each of their four elevations ; one side of an administration block would represent a New York tenement, its right-hand side the entrance to a temple and its other end a hotel in Paris, while, from the back, it appeared to be *The Last Chance Saloon* in a Wild West town.

The purpose of all these diverse styles of architecture was, of course, to provide as many settings as possible for use in film plays.

Even the bridges over the streams and gullies were given characteristic atmosphere, from old English cobbles to modern American cantilevers. Every road was made in a different style and the widths of no two were alike.

Its main street was more than six miles long, dotted with log cabins, English country cottages and even a modern motor racing track. When it threw open its doors in the early summer of 1915, it was considered the eighth wonder of the film world.

Its main stage was an open-air one, four hundred feet long and one hundred and fifty feet wide. On this gigantic platform scores of directors and their players, in line, made films simultaneously ;

in fact, in 1919 forty-two companies were working on the "lot" at once. Rupert Julian would be roaring through his megaphone at his leading man as he pleaded with the girl of his dreams to marry him, while Carter de Haven would goad on his players to fresh excesses in the sacred name of comedy and Francis Ford would whip up his flagging cowboys in Grace Cunard serials, the whole to the accompaniment of Christy making two-reel comedies.

There were motor sirens, volleys of revolver fire, smashing glass, men's oaths and heroines' cries for mercy all mingled into one indescribable din.

It was the nearest approach to babel the world has known (if one excepts some of the early talkies). In short, it was a sight worth seeing, and Carl Laemmle wasn't long in realising that the public would enjoy the spectacle; accordingly, a grandstand was built opposite to the main stage and the milling fans were admitted on payment of twenty-five cents. They could see any and every type of picture being made at once. They were satiated with intimate glimpses of their favourites. They sat from early morn till late at night chewing peanuts and shouting encouragement to the players.

When a film demanded the services of a hundred or so crowd players, the casting directors invited the public down from the gallery to take part in the scene. "There will be no extra charge," they were informed by the assistant directors, and the onlookers, eager for the thrill of playing in a picture, teemed on to the stages.

When the city was being built, bad weather was experienced and the only road, Cahuenga Pass, to the new studio, at best only a narrow, winding dirt-track over which everything had to be hauled, was made a morass by incessant rains. Horses, wagons and lorries were for ever being bogged in the mud. Old Charlie, the Universal elephant, would be sent out every half-hour or so to help push a truck out of the mire. In time he got so used to it that he used to push things that didn't need pushing. The road was in little better shape when the studio opened and many of the notable visitors who were billed to be present at the inaugural ceremony were still floundering in the mud long after the crowd and Carl Laemmle had decided to start the show.

Uncle Carl, as his staff called him, was given three rousing cheers by ten thousand visitors as an American flag unfurled, and the crowd fell into silence to hear the golden words with which he would open his wonder city in the new land of promise. For some moments he

was so overcome that he could not say anything at all. Finally he stammered, "I hope I didn't make a mistake in coming out here."

The year Universal City opened, California's much-vaunted sunshine was a minus quantity; the rain which had held up the building for many months continued steadily after the opening, swelling the rivers above the Pass into brimming cataracts. One night the rivers burst their banks and came flooding down upon the new but lonely studio set in the hills. The alarm was given and everyone—stars, directors, prop boys, and stage hands, spent the night battling with the invading torrent. Timber, sandbags, picks and shovels, all played their parts in erecting barriers to dam the flood. Hour after hour the inhabitants of the newest and craziest of all cities waged an unending struggle with the forces of nature to save—not their homes—but the home of Universal pictures.

To-day, Universal City is a far different place from the "lot" of old. True, it still straggles and sprawls over acres and acres of land, but good roads have taken the place of the former cart track, and modern sound-proof stages have wiped away the gigantic open-air raft stage and "silent" studios of old.

Carl Laemmle, a self-made man of unusual business resource and drive, was sometimes a little out of his depth with writers.

When authoress Winifred Eaton arrived from Canada with a letter of introduction, he surprised her by making her the head of his scenario department at a handsome salary within forty-eight hours of her arrival in California.

She decided to acknowledge his generosity by a graceful compliment. Stopping him on the lot a few days later, she said: "I wonder if you would allow me to dedicate my new novel to you?"

Laemmle beamed his pleasure. An hour later a messenger arrived to ask if black jacket and grey striped trousers would be the correct wear for Mr. Laemmle at the dedication ceremony, and at what hour the dedication was to take place.

Lightheartedly Miss Eaton replied that the dress Mr. Laemmle had in mind seemed highly suitable and that the ceremony would be at 3.30 that afternoon, but soon it was borne in upon her by members of her staff that Mr. Laemmle was not joking. Hurriedly she arranged a party for that evening, informed "Uncle" Carl of the change, and, at the function, solemnly called for silence and announced that Mr. Laemmle had graciously allowed her to dedicate her new novel to him. A good time was had by all.

ONE END OF THE RAINBOW

MUSIC, dialogue and sound effects were not the only additions to the screened picture which engaged the attention of the cinema industry forty years ago.

As far back as 1896 attempts were made to introduce coloured films.

The early ones were hand coloured, by lantern-slide colourists who painted them painstakingly frame by frame. By 1905 a system of stencilling was employed. Female labour was used to do the work on the score of cheapness. The effects, on the screen, were clear-cut and pretty, but the colouring bore little or no resemblance to natural colour. Pathé Frères, in France, kept up the system for years. *The Three Masks*, macabre drama of two brothers who danced through the streets during a carnival with the body of the man whom they had killed for seducing their sister—a film, incidentally, which seems to have eluded the film societies, and which appeared in the last phase of the silent period—was, probably, Pathé's most ambitious effort in the hand-coloured field.

Hand colouring, besides being inaccurate, was expensive even when cheap labour was employed.

Friese Greene had early experimented with colour films and took out patents for a system which got little further than the trial and error stage.

The most successful of the early colour systems was Kinemacolor, the direct forbear of Technicolor. Its patron was the late Charles Urban, who came of German-Austrian stock and who had traded in gramophones before coming to England in 1896.

He joined the pioneer film vending firm, The Warwick Trading Company, in Warwick Court, near Chancery Lane. He became a popular film salesman and, within a year, was encouraging Cecil M. Hepworth to improve the mechanics of the infant film projector and the methods used for printing and developing pictures.

Urban's pet speciality was the educational film. "Urbanora" was his insignia and "Urbanora" shows at the Alhambra, Leicester Square, where the present Odeon cinema stands, attracted thousands of willing youngsters to learn of the wonders of travel, science and botany via his screen.

One day he received a call from a chemist, Edward R. Turner, who had been working on a system of colour cinematography. Roughly speaking, his idea was based on the three-colour process for printing art plates, in which the printer has three blocks, one of the red portions of the picture, the second of the blue portions, and the third of the yellow. By printing them in exact register during three distinct operations he actually achieves four colours, for the blue and yellow blocks are so made to combine to give green.

Urban spent more than £500 on Turner's experiments, installing him in a workshop adjoining his office. They early encountered a snag. When Turner projected his three-coloured films, red, green and blue, simultaneously from three separate lenses, the three pictures failed to keep in dead register and the colours "fringed".

Sitting at his desk one day, Urban heard a crash from the workshop next door. He hurried in to find Turner dead on the floor, his notes of his experiments still swirling in the air currents caused by his fall from his high stool at the workbench.

Urban, several weeks after his protégé's funeral, brought himself to try to piece together Turner's records, but the notes were too scrappy and disjointed to mean anything. Urban only knew what had failed to work, but that, at least, was something. He determined to carry on from there, and engaged a photographer named G. Albert Smith, who had worked out a colour cinematograph system which he had named Kinemacolor.

Smith's colour system was simple. He used ordinary black and white films but imparted colour to them by rotating colour filters in front of the projector. It did not work because there were too many filters and they failed to keep in register with the black and white frames of film they were supposed to colour on the screen.

The experiments were now conducted in a portion of the Williamson studio at Hove.

There is a legend that Urban solved the shortcomings of Smith's Kinemacolor by seeing naughty postcards while on a jaunt to Paris. There were two gelatine views on the cards, one red, one green. They appeared innocuous enough until placed one over the other

and viewed against the light, when, the colours merging, they presented a much more piquant picture.

This, says the story, gave Urban the idea which ultimately led to the success of Kinemacolor.

According to Cecil Hepworth, F. W. Baker, and other contemporaries of Urban, the ultimate success of Kinemacolor was due to Smith's researches, Smith discovering that it was possible to get two colours to keep in register but not three, and that two could be made to give a satisfactory colour rendition by using blue-green and red-orange filters.

The film, itself in black and white, was taken at double the ordinary speed on a camera fitted with rotating filters. Thus each alternate picture was taken through a red-orange filter and those between through the blue-green filter. In the theatre the film went through a projector similarly equipped and travelled at twice the normal speed. (As the film had been shot at double speed the action on the screen appeared no faster than one shot at the then normal rate of sixteen pictures a second.) The rapidity of the alternate colour flashes from the rotating filters enabled persistence of vision to do for colour what it does for filmed action, namely blend the individual glimpses into a whole.

There were snags, it is true. The double running speed was heavy on the films. And no ordinary theatre projector could show Kinemacolor—it required a special machine equipped with fast gears and the filters. Moreover, it was possible to get the filters accidentally out of synchronisation with the corresponding frames of the film. When this happened the spectator got the curious impression, to quote an example I remember, that the blue trousers worn by a column of marching guardsmen were going across the screen independently, and well ahead, of their owners' red-coated upper structures!

But make no mistake, Kinemacolor was good if somewhat over-bright.

Urban removed his offices from Warwick Court to a building which he styled Urbanora House in Wardour Street, a move which led to nearly all the other companies vacating their premises in the former Flicker Alley of Cecil Court, Charing Cross Road, and clustering round him. Their descendents remain there to this day.

He gave a demonstration at the Royal Society of Arts. "The first time in the history of the world; animated pictures in natural

colours", read the invitation card. It was hailed as a great success.

Urban's greatest triumph came with the filming of the Delhi Durbar. Journeying to India to film the colourful pageantry of the durbar (or coronation) of King George V as Emperor of India, he achieved a picture which set the whole world talking. In after years he would recall how, fearful of sabotage by rivals, he was given an armed military guard for his apparatus, and how, to keep his precious negative immune from the blazing heat of the Indian sun, he dug a pit in the sand under his bed in his tent and literally slept on top of what, if the films had spontaneously ignited from the heat, would have been his funeral pyre.

Back in London, he gave the film a tremendous send-off at the Scala Theatre, building a representation of the Taj Mahal on the stage. King George, Queen Mary, Queen Alexandra and a score more of royal personages came to his opening. Illness struck him down at the last moment and he was not in the theatre at the hour of his triumph.

Already, had he known it, the tide was on the ebb, and rivals were in the field. Leon Gaumont introduced Chronochrome, a colour system in which the film ran at three times the normal speed. In London it was installed at the West End Cinema, now the Rialto.

The operator who projected the pictures, a leading figure on the exploitation side of one of the major film companies of to-day, thus describes a typical show :

"The film went at such a speed the mechanism almost smoked with heat. We had a system of filters and they were apt to ride out of register, so we had a man in the orchestra pit with a telephone. If the red began to get ahead of the blue and yellow, he rang me up in the operating box and told me about it.

"I only projected the colour film in the programme, after that the regular operator would carry on with the usual black and white pictures. I received a much higher wage for my part of the show than he did—I was supposed to be much more of a specialist. I was very young and used to lord it over the regular man. To mark my superiority I bought a natty gent's overcoat with a belt and would put this on most ostentatiously after my sweating, sweltering bout with the machine, much as a boxer wraps himself in a robe after a fight. Then I would go swanking down Coventry Street, conscious of my fat pay packet—I think it was £3 a week—and the fact that I was the man who put the colour pictures on the screen for fifteen minutes at every performance. Also I was secretly thankful after each show that I had been spared. That blazing, almost white-hot mechanism and the frantic phone calls from the man under the screen seemed to

haunt me in my dreams. You can't realise how thankful I was after each 'round' of the colour films on the programme to find myself still surviving to enjoy the crowded pavements of Coventry Street".

Chronochrome, despite its very many really beautiful colour achievements, went to its rest following a losing battle with a pea-souper fog which got into the Coliseum, where it was killed as a star attraction. The fog remained for two or three days and made it impossible for the tearing, raging film to make any impression on the screen. Incidentally, my informant got a comparatively restful job projecting pictures in a shooting gallery at a White City exhibition. The films were of wild animals and the customers were given explosive bullets which flashed on the metal screen. The more animals they brought down the bigger their prizes. When trade was brisk on a Saturday night, the anguished proprietor would lean over the board on which the marksmen sighted their rifles—the projector was housed underneath it—and hiss in a frightful stage whisper: "Turn the ruddy thing faster, they're winning too many prizes".

A digression from colour films, but one which shows that in the adolescent days of the cinema being a projectionist was in itself a colourful vocation.

Urban, encouraged by his initial success, went to America to offer the device to the Patents Company.

After a successful test showing, the leaders of the Patents Companies made Urban a handsome offer. He thought he was on to a gigantic thing; actually they did not want to scrap their existing set up to make way for the more expensive colour films, and they were only stalling to keep him out of the field.

When, finally, he found other backing and started installing machines in American kinemas so many "accidents" occurred, so many films were mislaid, so many machines seized up, so many filters got out of register, that he returned to London disgruntled.

True, he had established Kinemacolor studios in New York and Los Angeles, and, according to D. W. Griffith's wife, had actually filmed a version of Thomas Dixon's novel, *The Clansman*. Linda Arvidson, Griffith's wife, had parted from her husband, and she had a leading rôle in the film. A couple of years later Griffith himself filmed the same novel as *The Birth of a Nation*. What happened to the Kinemacolor version is a mystery.

Though Urban made big sums with Kinemacolor in France and Japan as well as Britain, outside speculation and the large sums

which he sank in educational pictures, a not very profitable field, reduced his resources. He retired after thirty-five years in the film game. When he died, in the autumn of 1942, at the age of seventy-five, he had been living in a mansion flat on the sea front at Brighton, and, according to his friends, "his circumstances were not as good as they might have been".

The curious thing about the big part he played in developing and promoting colour films was that, according to technicians who worked with him, his technical knowledge of photography was small, and he was apt to send his co-workers into a panic by leaning over the bins containing films which were being cut with a lighted cigar in his mouth quite oblivious to the fire risk.

As Kinemacolor faded from the screen, Technicolor began its first footsteps towards taking its place.

It made its bow in a since-forgotten picture, *The Gulf Between*. Originally, there was a similarity with the Gaumont system—there were two separate pictures which had to be kept in register on the screen. For this reason the film could not be released in the ordinary way but had to be toured with specially made projectors.

It caused little or no interest except as a novelty. Adjustments were made to the colour system and one colour was now dyed on the front of the film and the other on the back.

More than twenty years ago, Douglas Fairbanks, Senior, became interested in it and produced a spectacular picture, *The Black Pirate*, in Technicolour. The colour was passable but the theatres ran into endless trouble with the prints of the film because the emulsion on the front, in drying, tried to curl one way while the second emulsion on the back tried to dry another. On the screen, the picture never stayed in focus for more than a few minutes at a time.

Further adjustments were made to iron out this snag. Both emulsions were now put on the front of the celluloid base, and *The Gold Diggers of Broadway*, made in 1930, proved that Technicolor was on the right track at last, but it still did not give a true colour rendition and so a third colour was introduced. With *Becky Sharp*, based on Thackeray's *Vanity Fair*, Technicolor came into its own towards the end of 1935.

The Technicolor system uses one camera and one lens but three films are made simultaneously.

Each film is sensitive to different colours. The film which is sensitive to red and the one sensitive to blue run through the camera

packed together and the light passes through them simultaneously. The one sensitive to green runs through on its own.

An arrangement of prisms and mirrors splits up the light coming through the lens into three grades and passes them on through appropriately coloured filters before they reach the films. Thus the light which is split by the prism and reflected through filter number one records only green on film number one. The light which is reflected in the opposite direction falls on films numbers two and three, the two films which are packed together. This is red and blue light together, but the emulsion on the front film is only sensitive to blue rays, so it records only blue. Red, being the stronger colour, passes right through the front film and is recorded on the rear-most film.

These three negatives, however, are not in themselves coloured. They are black and white, but each one is different because it represents only about a third of the scene as recorded by the lens and filtered through to it—one negative is the green third, the second the blue third, and the last the red third.

In the laboratory, the negatives are developed and chemical solutions, in a bath, dissolve away all extraneous matter, leaving each colour-record on each frame of film slightly raised—in short, each frame has become a rubber stamp.

The films are now soaked in baths of dye, but each film is dyed, not the colour it recorded in the camera, but its complementary colour. Thus the blue is dyed yellow, the red is dyed blue-green, and the green is dyed magenta.

The negatives are now re-named colour matrices, and here the laboratory workers leave the colour process and turn their attention to the sound track, which is in black and white. This is printed down the side of the positive film which they are about to make.

Now, with the sound track printed in black and white, they start to put the coloured pictures on the rest of the film and they do it very much as a printer prints a picture in three colours. First the red matrix is pressed against the positive film. You will remember that the red matrix was dyed its complementary colour, blue-green. The dye is absorbed by the positive. Then the green matrix is pressed against it, leaving its record of magenta dye. Finally the yellow dye from the blue matrix is pressed against the positive, a positive which has now become a three-colour film.

It requires no special projector to show a Technicolor film and



(Left) The Warner Brothers' first permanent theatre, a nickleodeon called The Cascade in New Castle, Pennsylvania, acquired in 1906. The attraction was *The Artful Husband in Distress*. (Below) The glittering first night of *The Adventures of Robin Hood* at the Warner Theatre in London's Leicester Square. The stars were Errol Flynn and Olivia de Havilland





(Left) Herbert Rawlinson, following swiftly on the success of Francis X. Bushman and Maurice Costello, the first screen idols, became one of the most popular leading men in American films before World War 1. He is an Englishman, born at Brighton, Sussex, and is still acting before the cameras



(Right) Mary Fuller, the predecessor of Mary Pickford. With the now forgotten Florence Lawrence, she was the first star of the single reelers to make a big hit with the public, appearing consistently up to 1917



(Left) Mae Marsh, ex-telephone operator whom Griffith discovered in 1912. He changed her name from Mary to Mae, to avoid confusion with Mary Pickford. Her most notable performance was as the tragic sister in *The Birth of a Nation*

(Right) William S. Hart, stern of visage, was the first of the Western Heroes to add acting to mere action. Originally an instructor in a New York riding academy, his films, in which he inculcated a wide streak of uplift, were highly popular until the public tired of their dour outlook



(Left) Pearl White, like Valentino, created a reputation which is still remembered. The "queen of the serials". On leaving school she became a bareback rider in a circus and made her film debut as a stunt rider

(Right) Tom Mix, the genuine thing in cowboys; born on a ranch and later a Deputy United States Marshal, he made his debut in a Selig film in 1914 and became an internationally famous figure on the screen, retiring with a fortune





(Above) Two British stars of the twenties—Stewart Rome and Violet Hopson
 (Below) Colette Brittel, Stewart Rome and Henry Victor in *The Prodigal Son*



no double or treble speed gears or filters. It is, as near as makes very little matter, a true natural colour picture.

There are several other systems of course, most of them claiming to be just as good as, if not better than, Technicolor. J. Stuart Blackton of Vitagraph, came to London in 1920 and opened headquarters on the site of what is now Bush House at the foot of Kingsway. Using a colour system called Prisma, he made a full length costume romance called *The Glorious Adventure*, starring Victor McLaglen and Lady Diana Manners. Though quite successful, little seems to have been heard of Prisma since those days.

The Dufacolour process has also been seen successfully in feature-length films, and Cinecolor, used by the smaller Hollywood producers, has also had a promising initial success. It has the, apparently quite accidental, attribute of making some interior shots appear to be stereoscopic.

Now coming into the colour field is another system, Agfacolor, which derives from a process perfected by German research workers during the second world war and which was kept a closely-guarded secret by the Nazis. Had they won the war, they planned to make Agfacolor the supreme colour film system throughout Europe, if not the world. With their defeat, the secrets of the process came into the possession of the victorious powers, and it will become available through the ordinary commercial channels. It is pronounced by experts as being of a very high technical quality indeed and less troublesome to handle in the laboratory than most of the colour systems which have been used in the past.

That is looking ahead in the cinema's story. When Kinemacolor faded out, the film industry did not mourn. Pictures made in black and white were booming.

Hollywood was entering its golden age.

THE OTHER END OF THE RAINBOW

IN Hollywood it was a colourful, unsubtle and garish era which followed the decline of Kinemacolor. Those sun-baked, clinker-board sheds on the Californian coast were beginning to expand into big studios.

Rates of pay went skywards as the stars began to learn that, unlike a stage play, a film is seen by tens of millions of people. As someone once remarked: "More people have seen Chaplin in thirty years than ever saw Hamlet in three centuries".

Britain went to war but America went to the pictures—so ran the old jibe. It was partly true.

Crippled by the terrible burden of the first world war, British studios began to close down, but in Hollywood things were moving to the fan-crazy age in which, to quote the ultimate example, roses were strewn ankle-deep before Gloria Swanson's car when she rode down Hollywood Boulevard.

The days of John Bunny and Flora Finch had waned. The crude slapstick of the early years now gave place to opulence, and the simple tear-jerker went under before a wave of luscious, lavish, and albeit, silly novelettes. New leading men usurped the supremacy of Francis X. Bushman and Maurice Costello as the two most popular matinee idols, while the heroines who had relied on curls, dimples and melting eyes to hold their audiences found themselves facing Theda Bara, the female vampire who was destined to give a new world to the world, that of "vamp".

Theda Bara came into prominence in 1915 with the old Fox Film Company. They cast her in Kipling's poem, *The Vampire*. She was an immediate sensation and the public demanded to know all about her. Obliging William Fox's publicity staff informed them that her name was Arab spelled backwards, that she was the illegitimate daughter of a French artist and an Arab woman, and that she had been born in the Sahara desert. They turned out grisly pictures

of her tearing her tresses in hellish fury or crouching over a man's skeleton as she gazed into a crystal.

The truth was that her real name was Theodosia Goodman, that she was born in Cincinnati, Ohio, that the illegitimacy story was all nonsense, and that she had previously, in her profession of actress, played several small parts in Pathé pictures under the assumed name of De Coppit.

In such fashion was ushered in the era of the great ones of the silent screen—William S. Hart, the dour cowboy who played so many righteous-faced cleaners-up of lawless towns that, in the end, audiences began to weary of his appearances, forcing him to retire in high dudgeon to a ranch-like home which he had built on the outskirts of Hollywood, Wallace Reid, who could not stand the terrible pace of the fairground-cum-boom-town and killed himself with drugs. It was the hey-day of the sadly-solemn Gish Sisters whom D. W. Griffith reared from child rôles to simple tear-dewed young things the like of which, surely, have had no counterpart in real life. There was Thomas Meighan and William Farnum, early exponents of the tough school, and stately, statuesque Pauline Frederick, and Nazimova—who, it is said, was a nine days' sensation when she took to strolling on Sunset Boulevard in bright yellow pyjamas in a day when pyjamas were still taboo except for boudoir and bedroom wear.

Tom Mix, U.S. marshal and circus stunt rider, came into the film town to clean up a fortune and to retire with it while his popularity was still high, buying himself a touring Wild West show to provide for his old age.

The Talmadge sisters were the delight of all the sweet young things of the twenties, and were usually described as "delicious", which gives a good idea of their neat and girlish acting in neat and girlish stories. Agnes Ayres, Priscilla Dean, Dorothy Dalton . . . so the list goes on. One would need a film *Who's Who* to list them all.

The blazing Californian sun ceased to glare down on open-air stages. The studios, which had first become "glass tops", now had the glass painted black to keep out the sun, and Kleig lights blazed in the stuffy stages. The cameramen had always yearned for "controlled light" to get their most cherished effects. Authority bowed to them and arc lights now gave off powdery ash which settled under the actors' eyelids. "Kleig eyes", inflamed and painful, became an everyday concomitant of film making.

But there were compensations ; so that actresses should be able to conjure up an over-plus of emotion—practically all acting of the “ middle ” period of the silent film was over emphatic and intense—a little orchestra would sit at the side of the set and dispense bitter-sweet music.

It was the day of the big comedians—Buster Keaton, Harold Lloyd and Roscoe Fatty Arbuckle, and of the big scandals, too.

Arbuckle created a world-wide sensation because a girl died in suspicious circumstances at a party which he gave. Tried and acquitted, he was nevertheless hounded off the screen by the Women’s Clubs of America and had to change his name to William Goodrich before he could act small parts and direct a few short subjects in order to make a living again.

Bebe Daniels, who has made some three hundred films, gave me this first-hand account of the Harold Lloyd period :

Bebe, whose father was a theatre manager and whose mother was an actress, was a child player on the stage. One of her first rôles was as Lewis Stone’s son in a melodrama, but child labour laws prevented her continuing her stage career. There was then no such ban on film work. Accordingly she played at the Selig studios and then joined the 101 Bison company at Santa Monica. She nearly always played the same part—the heroine’s kid sister.

“ I was”, she says, “ invariably kidnapped by the Indians and rescued by the hero”. By the time she was eleven she was doubling for the stars in trick riding shots ; when she was thirteen she applied to Harold Lloyd for the job of leading lady and got it.

Lloyd was then playing a character known as Lonesome Luke. He wore a little moustache, big boots and a tail-coat, but, fearing that people would say he was imitating Chaplin, he changed his type entirely, donned horn-rimmed glasses, nicely creased trousers, and a half-belted jacket, and styled himself Winkle.

Bebe Daniels got thirty dollars a week and Lloyd got fifty. The studio was without artificial light, therefore most of the films were made on location. But when there was no light, photographically speaking, even for location work, they sat in the studio and played games. They had an orchestra, for what it was worth, and Lloyd played the drums and the producer, Hal Roach, the saxophone. Bebe Daniels strummed on a ukulele. “ We had a lot of fun”, Bebe Daniels says.

“ We never had a script. We would start with an idea and work

up the film as we went along. Lloyd and I often went out together for picnics and to fun fairs. We used to go to the dance competitions, too, where we won several cups and prizes. But there was a caste system in existence even in the '20s, and the rest of the film colony used to look down on us because we were only "one and two reelers".

She went to Cecil De Mille and became one of his leading ladies. She was then seventeen, and De Mille promptly told her to forget all about comedy and turned her into a heavy in her first film, *Male and Female*, in which she played a Babylonian princess.

And here is the epitome of that immature but booming Hollywood of the '20s—Bebe Daniels bought herself a powerful car and flashed through the Hollywood streets so that all heads would turn and watch her progress. Naturally she was always getting tickets for speeding, but this scarcely mattered, for she had a relative who was a friend of the District Attorney. One day she made a bad blunder. Arrested for doing seventy-five in Santa Anna, she was dismayed to discover that her uncle had no influence in the district.

She was tried by jury and was given ten days imprisonment.

"I was terrified. Yet those ten days turned out to be amusing after all. I was permitted visitors and luxuries. A furniture company fitted out the cell and I was allowed to buy good food, but, when I asked for my bill for my meals, I could not get it. I found out afterwards that the restaurant which was sending in my dinner was displaying a huge notice: 'We Are Feeding Bebe Daniels'.

"Abe Lyman and his band turned up and played to me the whole of one afternoon. People thought it was a publicity stunt, but it wasn't. In fact, the studio was aghast at my being in jail for I was the first film star ever to be put behind bars. And I learned my lesson—not to go speeding where my uncle had no influence".

The Hollywood of the 1920's combed the world for personalities but seldom for ideas.

Goldwyn brought Geraldine Farrar, great prima donna of the opera stage, to Hollywood for ten thousand dollars a week and made her, against all probability, a great star in silent films.

The film capital hired Pola Negri, who came from German films directed by Ernst Lubitsch. Having, at the age of six, come through the Polish Revolution against Russian rule and, later, through the Russian Revolution during the first world war, it is not perhaps surprising to learn that she always slept with a revolver beside her

bed. A fatalist, she also always slept with a dream interpretation book under her pillow as well, or so her secretary said. Hollywood accepted it all as a matter of course. As long as her films made money she could have an armed guard and an astrologer if she wished.

From Sweden the film colony brought Garbo, though, in this case, it really was after her director, Mauritz Stiller, but he never really fitted into the Hollywood pattern. The studios certainly made a good investment in Greta Garbo, though they overplayed their hands in the end by making her so aloof and remote that audiences began to lose interest.

But no one can accuse Hollywood of not being diverse in its acting material.

At the other end of the scale from Negri and Garbo it had two gamins extraordinary in Mabel Normand and Clara Bow.

Mabel Normand came from sedate Boston, but there was nothing sedate in her career. She called herself Mabel Fortescue at first and made a series of *Betty* comedies at the Vitagraph studio in Brooklyn, then she graduated at Biograph and Keystone before becoming Chaplin's leading woman. Sensation seemed to follow her wherever she went; she was a close friend of W. D. Taylor, the English film director who was murdered in Hollywood in 1922. She was one of his last visitors; he was found shot an hour later. Two years later, while she and Edna Purviance, another Chaplin leading woman, were dining at the flat of Courtland Dines, a wealthy stockbroker, he was shot dead by her chauffeur.

She is reputed to have spent twenty thousand dollars a year on clothes, but she certainly played fairy godmother to several unsuccessful actresses. Full of a tremendous zest for life and an inveterate practical joker in the studios, her life was burned out by tuberculosis by the time she was thirty-four.

Wide-eyed Clara Bow, on the other hand, was a real product of Brooklyn. The stage hands used to call her "The Brooklyn Tomato", and she brought a wide-eyed, whirlwind spirit of impudence to the screen that has never been equalled since.

Hollywood, then as now, drawing on the stage for the greater part of its talent, was always ready to take a chance on any personality which was "different". It made an indifferent actor but a tremendous sensation out of the contortionist stage hand, Lon Chaney.

All through his life, Chaney kept his stage hands' trade union ticket just in case his career came unstuck. A past master at throwing

his limbs out of joint, strapping an arm or a leg to his body to make himself appear to be maimed, he never really was an actor.

Every time he was offered a new contract, he always asked for another ten dollars no matter how big the amount. Offered five thousand dollars a week, he would insist on five thousand and ten. It baffled the studio executives for a long time. One day he told a friend that when he was a stage hand he had once asked for a ten-dollar rise and the boss had refused it. He had sworn that, one day, studios would be glad to pay him that ten, and even when he had become a big star, he never forgave them the rise which he always considered was rightfully his.

Among the most colourful importations from the Continent during the '20s was Erich von Stroheim, the most misunderstood man who ever set foot in the film capital. Again and again he was charged with wild extravagance, but though he spent hundreds of thousands of dollars on his pictures, he himself always lived so modestly that the rest of Hollywood thought it must be a pose.

The truth was, of course, that Stroheim was an artist in moving pictures whereas his employers were factory managers. Neither could ever be reconciled to the other's point of view. Griffith, with his efficient American methods, the executives were willing to concede was a genius. Stroheim, with his wild yearnings for experiment, his passion for putting odd characters on the screen, and his predilection for choosing stories with a bitterly satirical undercurrent, only succeeded in baffling them.

Stroheim reached his zenith with *Greed*, a forty-two reel picture which took ten hours to show. It was based on a sombre novel by Frank Norris called *McTeague*, a story of a miner-turned-dentist who marries a girl who wins a comfortable sum in a lottery, a stroke of fortune which results in the wife becoming a miser and her lumbering husband, McTeague, a hanger-on, a story which reaches a terrible climax in McTeague murdering his wife and then being hounded to his own death by a former friend who turns sheriff's deputy solely to obtain the reward for the other's capture.

Stroheim, who had worked as one of Griffith's assistants, gave a new touch to the screen.

Whereas Griffith relied on editing for his effects, cutting in the significant shot at just the right moment, Stroheim relied on comment within the scene itself to get his most cherished effects. When McTeague marries his miserly bride in his dental parlours and the

harmonium wheezes and her German-American family stand in limp attitudes of maudlin and sentimental attention, a great crowd can be seen through the window, gathered on the opposite side of the road. For McTeague's wedding? One might suppose so, until Stroheim causes an elaborate funeral cortege of a local big-wig to pass.

That sort of thing was typical of his work. Cecil B. DeMille was surfeiting the world with lavish spectacle which played around but only hinted at sex. Stroheim gave the world the real thing; where other directors ended their stories with the marriage of hero and heroine, Stroheim started his stories with their marriage. *Foolish Wives* and *Blind Husbands* startled Hollywood considerably, for they dealt with after-marriage problems of sex, whereas the screen had hitherto only ever dealt with the pretty-pretty but uncomplicated situation of boy merely meeting girl.

Stroheim, unlike Griffith and Chaplin, was unable to conform to Hollywood standards of production. Anything was liable to happen when he started shooting; he had no regard for expense or time. The studios humiliated and crushed him by calling him off a film and substituting another director because the executives were fearful that he would land them in bankruptcy.

They even made him toe the line to the extent of turning out a conventional box office subject, *The Merry Widow*. Stroheim made a great job of it—for his employers—and the film took four million dollars at the box office, but Stroheim himself has always hated it.

He came to Hollywood via the Austrian cavalry, the Imperial Palace Guard in Vienna, selling fly-papers and hawking picture postcards (the latter, presumably, during the débâcle in Austria following the collapse of Germany in 1918), and he brought a measure of Prussian arrogance to bear in the studios, a factor which doubtless contributed to his feuds with the executives.

They tell a story in Hollywood to the effect that he once planned to stop one "front office" interfering with the production of one of his films by the drastic expedient of mobilising his actors and stage crew as a fighting unit and holding his preserves by sheer armed force, a course from which he was dissuaded by his wife, who pointed out that such things are "not done" in America.

It was the day when stars always stipulated that the studios should provide them with a car in addition to their salaries. The studios were miles apart and transport was practically non-existent.

When Alice Terry was promoted from thirty-dollar-a-week extra

and film cutter to star status, she took more delight in her car than in her three thousand five hundred dollar per week salary. Too often had she been stranded at the old Metro studio, then out in the wilds, for the memory ever to be lightly erased.

The Metro studio, a straggling mass of offices and out-buildings, was built during World War One by Triangle-Kaybee. The Triangle was D. W. Griffith, Mack Sennett and Thomas H. Ince, the latter the vigorous director of big-scale melodramas, above the ordinary rut, which introduced some catastrophe of nature for their big dramatic effects.

The studio was situated at Culver City. Harry Culver was an estate agent, or, in American parlance, a real estate man. Ince went to see him about a site for a studio. Culver, realising that it might attract a thriving community to a district which was then in the back of beyond, gave him the land.

Ince did not get along well with his partners. They enjoyed making decisions, but his temperament was not of the kind which takes orders easily. In 1919 they told him he was through. Ince said: "All right. Now get your studio off my land." They looked at the deeds and found that he was sole owner of the ground on which it stood.

He finally sold them the land at a fancy figure and built his own studio half a mile down the road.

There were many changes at the studio before it emerged in its present guise, that of the home of Metro-Goldwyn-Mayer. At one time the studio tried to put into operation the dream of all producers—the hiring of a great array of famous novelists and dramatists to write for films.

The studios never understood the writers and the writers, with few exceptions, never took on the protective colouring that would enable them to endure the incredible-seeming ideas of the studio bosses.

That their ideas were usually right never excused them in the eyes of the authors. *Ben Hur* was a typical example of the kind of studio politics which rattled the writers. After months of preparation Charles Brabin was chosen to direct it. George Walsh was to play the title rôle, and Gertrude Olmsted, Francis X. Bushman and Kathleen Key had the featured rôles. The entire company was despatched to Italy to make the film there for authenticity's sake.

Before the film was completed there was a spate of reorganisation

at the studio. Its repercussions were felt in Italy. Brabin, Walsh and Gertrude Olmsted were taken out of the cast and were replaced by Fred Niblo, Ramon Novarro, and May McAvoy, and the unit was recalled from Italy and the picture was started afresh in its entirety in Hollywood, but at least on purely commercial grounds such a decision was justified. In London *Ben Hur* ran for forty-eight weeks at The Tivoli, the longest run of any silent film.

In fact, big hits came from the re-vamped organisation in an unending stream and continue to this day. From this studio came *The Big Parade*, *He Who Gets Slapped*, *The Broadway Melody*, *Trader Horn*, *The Big House* and *Anna Christie*, and countless more.

Efficiency experts were appointed in some studios. They stultified almost everything appertaining to productions, and so ended the days when producers would take a chance on a story or a star without recourse to nation-wide polls conducted to discover the lowest common intelligence quotient at which a star or story should be aimed in order to derive the biggest returns at the box office.

Surprisingly, the old method, or rather lack of method, was responsible for some very big hits indeed, a spirit of adventuring which, although by no means absent, has been increasingly curbed of late in America. In Britain, the years of the second World War saw a corresponding increase in courage in finding new themes and players.

To-day we still have to seek in the American scene for pictures of the scale of *The Covered Waggon* and *Cimarron*, of *King of Kings*, *Cavalcade* and *San Francisco*, of *Grand Hotel*, *Ten Commandments* and *What Price Glory?* In eight or nine years we have had *Gone With the Wind* and *For Whom the Bell Tolls*, spacious films but in a sad minority amongst so many *Mrs. Minivers*, *Yankee Doodle Dandys*, and *Frenchmen's Creeks*.

We still have stars who become popular and established favourites in their first pictures, but to-day careers are planned by the experts appointed by the bankers ("to protect their investment") with an almost fanatical precision. Yesteryear stars rose to eminence often by pure chance. Could Rudolph Valentino, the greatest matinée idol the screen has ever known, duplicate to-day the circumstances which raised him from the extras' ranks?

He was a small part player and dancer employed by Metro. The fortunes of the company were not bright in 1918. Cinema attendances had fallen off because of the influenza epidemic which

raged throughout Europe and America. The company was losing tens of thousands of dollars every week. War pictures were unsaleable but unfortunately for Metro they had several ready for distribution and several more on the stocks.

It was not, then, at all a propitious time to launch a new star in yet another war story, but Richard Rowland, then president of Metro, had become fascinated by the tremendous sales which Vincent Blasco Ibanez's novel *The Four Horsemen of the Apocalypse*, was enjoying. Against all reason, he bought the story for a down payment of twenty thousand dollars and ten per cent royalty on the film's earnings.

His New York associates thought he had gone crazy. He admitted that he had not read the story.

June Mathis, a scenarist, turned the book into a script. It was still a war story, but Rowland valued her judgment and asked her to select a director for it. She chose Rex Ingram, but when Rowlands asked her to name a suitable star for it and she plumped for the comparatively unknown Rudolph Valentino, even he began to think that the film might fail.

June Mathis, however, convinced him of the wisdom of her choice.

So the *Four Horsemen* went into production, one of the dearest stories the studio had ever bought—it was to cost them one hundred and ninety thousand dollars in all and even then they had to persuade Ibanez to commute his royalties otherwise he would have taken close on half a million out of the film's earnings—and it went into production with an unknown as a star at a time when the few film-goers who had escaped or recovered from the 'flu were making it plain that whatever else they wanted they did not want war on the screen.

When the film was released, Valentino lived up to June Mathis' prediction—he was a sensation. An actor of average ability, he was endowed with smouldering eyes which seemed as though they were mentally undressing every woman he looked at.

He was a vain, but kind-hearted, man, who enjoyed his success even if he himself never quite understood it. The girls who threw themselves at his feet genuinely distressed him ; he enjoyed flattery and adulation but he never acclimatised himself to their sex hysteria.

Reckless in his expenditure on dress—he would order English tailored shirts on his visits to London not by the dozen but by hundreds—he also enjoyed the simple vanity of buying a sixpenny

seat in a flea-pit cinema and sitting among the audience to hear their comments about his screen self. Girls who waited hours outside his hotel and who never caught a glimpse of him because he left by a back door, never knew that he was the dark young man who sat next to them in cinemas as far apart as Camberwell and Hackney.

His triumph in *The Four Horsemen* marked the turning point for Metro. It earned four million dollars for them.

To Valentino, *The Four Horsemen* was the stepping stone to endless Sheik roles. It stultified his work. There is no means of knowing now whether he could ever have developed into a truly great actor for he died while still at the height of his fame as a matinee idol who sent adolescent girls crazy.

The scenes following his death reflect hardly at all to the credit of the cinema fans of America in the 1920's. Hysterical women flung themselves on each other to catch a glimpse of his face in death. The graveside ceremony became a shrieking riot.

Even after his death, exhibitionists made scenes at his grave. With the passing years, a mysterious veiled woman appeared on each anniversary of his death to perform her own sorrowful flower-laying rites at the ornate tomb which had been built as an elaborate sepulchre for his earthly remains. Speculation as to her identity made news paragraphs in the popular press the world over.

Her activities ceased at last, when it was generally bruited abroad in Los Angeles and Hollywood that she was paid by a local florist to make her annual, mysterious appearance in order to renew interest in the "great Latin lover" and so maintain the sale of flowers for his grave.

The arrival of block booking, of course, had a great deal to do with the mediocrity which set in just before the arrival of talkies. Pictures were listed in groups, or blocks, and exhibitors had to take poor pictures along with the good or go without. Attendances fell off to an alarming degree in the United States, until talkies were seized upon as an expedient to re-awaken audience interest.

The last years of the silent picture were the heyday of the De Mille "epic", with its lavish, glittering "wedding cake" sets, its feminine stars bathing in milk in gold and marble plumbing contrivances, its stories artfully contrived to flirt school-girlishly with sex sentimentality but never with reality.

Older scenarists swear that on some of the Hollywood lots signs

were displayed in the writing departments reminding the staff that "Your audience reaches full mental bloom at the age of twelve—write accordingly."

It probably is not true, but the legend is at least symptomatic of the feeling in the studios during that era.

Yet, if silent-film Hollywood had its faults, its scandals, its booms, and depressions, at least it was always forceful and hardworking. While other countries dallied spasmodically with the making of movies, Hollywood made it a business even if its artistic successes were only a fraction of its vast output.

There are many reasons for this. Those who work in the Californian sunshine surrounded by luxury are apt to run to seed early. And so many tragedies have engulfed the "big names" of the screen that it has often been hinted by the superstitious that there is a jinx on the locality, while its religious opponents are not reluctant to ascribe some of its misfortunes to a heavenly judgment.

Certainly, Carl Laemmle's Universal City was almost swept away by floods on its opening day, stars have taken their own lives, and there have been spectacular financial crashes amongst the big shots, but surely the quotient runs no higher than in any other community living in high gear and geographically situated in a spot where earthquakes and tornadoes are to be expected—that is, if there is a comparable community.

When, in March, 1938, the floods came again to Hollywood the "judgment on wickedness" rebuke was heard as never before.

Floods swept over thirty thousand square miles of Californian soil, killing one hundred and twenty-four people and rendering nearly nine thousand homeless. The cause was four days of ceaseless rain which caused two hundred landslides and burst many dams and river banks. The police were ordered to shoot looters at sight. Streets were barricaded in nearby Los Angeles to keep hungry refugees from swarming into the city and consuming the remaining food supplies. Radio amateurs were the sole means of communication with the outside world for two or three days. The Red Cross found itself with ten thousand cases of sickness and hunger on its hands.

Railway lines were cut. People were drowned in their cars, gas mains burst into flame. Trees, mud and refuse were swept down the streets in big waves which tore away the flimsier bungalows for ever, and wrecked sets built on the studio lots. (A prop whale from Warner Brothers floated awe-inspiringly in the main streets for days.)

And, just as San Francisco talks of The Fire and omits mention of the earthquake which preceded it, so Los Angeles and Hollywood still talk of The Flood and gloss over the fact that the overture to the disaster was a violent earth tremor.

Refugees piled into schools and other municipal buildings. The newspapers of the world reported that Norma Shearer was marooned, that Clark Gable had had to abandon his car, that Spencer Tracy's home was flooded, that Deanna Durbin was sending out radio appeals for news of her father, and that Madeliene Carroll had almost lost her life.

Names make news, of course, but the public got a one-sided view of the disaster. It heard little about the misfortunes of the workaday citizens of the film city.

Perhaps, then, one can understand the religious zealots who thronged the rest centres and, mounting chairs, cried to the stricken people : " Repent ! Repent ! The floods are a judgment, a judgment for the wickedness of the city ! " Their view was one-sided. Carpenters, plasterers, electricians and stage hands, hairdressers, scenic designers, cafeteria workers, transport drivers, upholsterers, and art directors probably had little or nothing to repent, but, ever since the days of the Paris Charity Bazaar fire, the moving picture, because it gives pleasure, has always betokened in some minds a suitable focal point for Divine wrath, so who can blame the fanatics when the Fourth Estate is so ready to distort actuality ?

Perhaps Hollywood has not yet recovered from the disaster of the Spring of 1938. Was the zest to adventure in the making of films washed away with the receding flood waters ?

 SPOTLIGHT—AND TWILIGHT

TOO often does to-day's cinema-goer write off as negligible the achievements of the British cinema industry during the heyday of the American film. Some even assume that pictures started only with the talkies, ignoring all those directors who made films into an art form and who gave up in despair soon after sound arrived to destroy their work of twenty years. There are those, too, who think that good British pictures only emerged during the Second World War.

Certainly good British films were rare, but they did exist. Practically obliterated by the First World War, British pictures made a by no means negligible come-back in the twenties.

Gone for some time was the super film. Will Barker's *Jane Shore*, which preceded *The Birth of a Nation* by about a year, and Hepworth's great staging of the Gordon Riots in *Barnaby Rudge*, both made in the untroubled days of 1913, were little more than memories when Elstree became the focal point of a new upsurge in British production.

Chrissie White, Violet Hopson, Lionelle Howard and Stewart Rome had been the great stars of the 1920 screen, until Elstree came to usurp the position held by Hepworth at Walton-on-Thames, Barker at Ealing and Broadwest at Walthamstow. These producers had brought the British film a long way since Alfred Collins, producing for Gaumont, had as his leading man a handsome young coster from Old Kent Road who was known simply as Mike and who ultimately got so weary of "all this 'ere muckin' abaht," that he abandoned his dashing and heroic screen life to return, contentedly, to his barrow.

Production methods had become more elaborate than in the days when Cricks and Martin at Croydon produced Lord Lytton's *Eugene Aram* from a script, which I recently inspected, typed on five sheets of notepaper and which embraced only seventy-five shots.

The dramatic content of the films had been raised considerably since the time when a British distributor put out a leaflet advertising a film, *Fight With Sledge Hammers*, which read : " Two blacksmiths bash each other to pulp with hammers, throw iron bars at each other, and all for the love of a girl. See the sensational ending in which Joe holds Fred's head down on his anvil and is about to bang his brains out with a sledge hammer but is prevailed upon by the girl to spare the other's life. See the victor crawl battered and bleeding across the floor, his all but senseless form dragged up on to its feet by the policeman who takes him into custody." Yes, indeed, *Fight With Sledge Hammers* was definitely a thing of the past in the early twenties.

Fred Dunning, property master and general studio factotum, played the lead in many Cricks and Martin winners, including *A Daughter of Satan*. By 1920, however, the film actor had not only established himself as an actor and not as a scene-shifter, but the pictures themselves had been raised in status since the days when the chief billing for a Cricks and Martin film, *Royal England—Story of an Empire's Throne*, was modestly advertised as : " Recited with enormous success by Leo Stormont at the London Hippodrome, accompanying a series of animated pictures by Cricks and Martin."

No, by 1920, the film, and the film alone, had become the sole worthwhile attraction in British cinemas, just as it had in America.

Within a few years the American picture had moved to such a pinnacle of popularity that even the classics were supposed to feel honoured by being " done into pictures." When, in 1929, Mary Pickford and Douglas Fairbanks made *The Taming of the Shrew*, the credits contained the delicious information : " By William Shakespeare, with additional dialogue by Sam Taylor."

This was at least an advance on the days of 1908, when Florence Lawrence, as Juliet, took her sleeping potion on a bed which had a large letter " V," surmounted by the American eagle, on its canopy, trade mark of the Vitagraph Company of Brooklyn, and put there purposely to stop the unscrupulous from duping the film and selling it as their own. (Until a revision of the copyright acts in 1911 there were only two ways of establishing copyright in a film. One was to paint the trademark on the scenery and then proceed against the makers of pirated prints by an action for infringement of the maker's registered insignia, a practice which led to the

(Right) Charles Chaplin in his first film, *Making a Living*, Keystone comedy produced in 1914. He had not then evolved the tramp character (Below) The tramp listens to a sad song with the sentimental bar room harpies in *A Dog's Life*—Chaplin in familiar guise

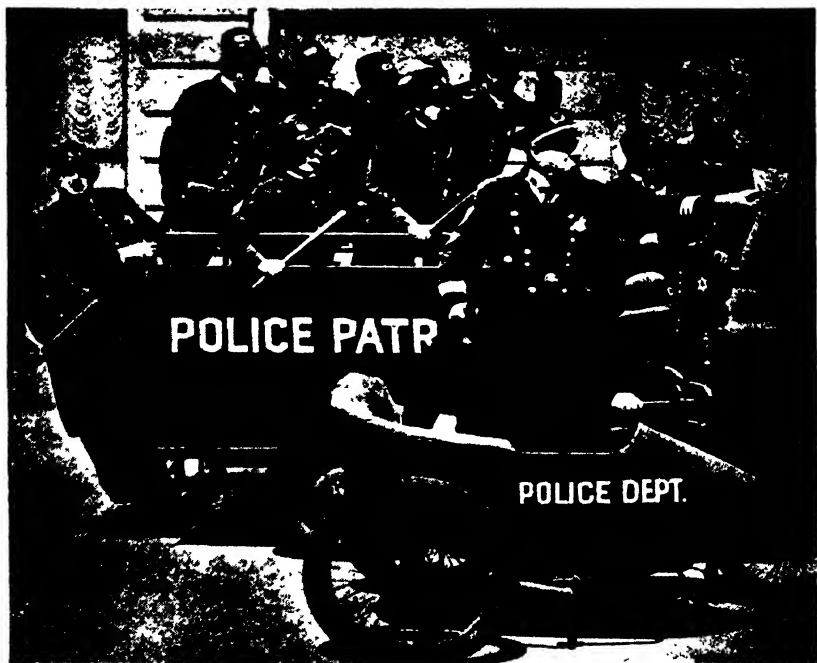


Chaplin (second from the left, front row) when he was one of Fred Karno's music-hall comedians playing in a roller skating rink at Liverpool in 1909. Standing behind him is Stan Laurel





(Above) Dustin Farnum in the first version of *The Squaw Man*
 (Below) "Police Chief" Ford Sterling leads the Keystone Cops



"AB" of the American Biograph Company being stencilled on the walls of coal mines and the huge bell of the Lubin Company appearing on trees in "unexplored" jungles. The other was to cut out one frame of film of each scene and enlarge it up to reasonable proportions and to register it at Stationers' Hall. Then, if anyone copied the film, the maker of it could take proceedings against the pirate for having infringed his copyright in the *still* pictures which he had put on file.)

The wild and woolly aura of early film-making days in Britain had not, of course, been entirely dispersed by the twenties. America had obtained such a lead and was in such a promising position from the point of view of sales, that it was practically impossible for British producers to eschew entirely the cheeseparating methods of the early days. America, with 15,000 cinemas as against the 4,000 in Britain—a position which has remained more or less unaltered to this day—was in the happy position of selling its pictures to a population of more than 122,000,000, while a British picture's potential public was in the region of 40,000,000. From the point of view of production costs and salaries the position was—and in some measure still is—that for every dollar spent by an American producer the British producer could only spend a quarter of that amount.

The obvious alternative, of course, was to make better pictures without falling into the trap of supposing that high cost can be any criterion at the box office. It took British producers a long time to realise this.

In 1914 and 1915, days in which the First World War was still not seriously interfering with British production, the tendency was for Britain to meet the American competition of Pickford, Mary Miles Minter, Pearl White and the rest by concentrating on stories by famous writers, although, several years before, Adolph Zukor had discovered by painful and expensive experiment that the public which goes to the pictures does not give a hoot who writes the stories it sees.

Besides *Barnaby Rudge*, British studios were turning out such classics as Barrie's *Little Minister*, Pinero's *Iris*, Arnold Bennett's *The Great Adventure*, Hall Caine's *The Christian*, Hardy's *Far From the Madding Crowd*, Temple Thurston's *Traffic*, Anthony Hope's *Prisoner of Zenda*, as well as *Adam Bede*, *Caste*, *Sweet Lavender*, and dozens of other best sellers.

When famous plays and novels proved themselves to be of little account at the box office in face of the competition of Blanche Sweet, King Baggot, Douglas Fairbanks and Clara Kimball Young, to take a few names at random, the British producers turned to the stage for ready-made "greats."

Forbes-Robertson, Sir George Alexander, H. B. Irving, Gerald Du Maurier and Matheson Lang were in great demand. The last-named, and Ivor Novello and Fay Compton, earned quite substantial reputations on the screen, but the others failed to engender anything but passing interest.

The American studios had made unknowns into stars, players like Madge Kennedy, Mae Marsh, Marguerite Clarke, Mae Murray and Anita Stewart. In Britain, George Clark Productions stuck consistently and successfully to Guy Newall and Ivy Duke, Broad-west to Violet Hopson and Stewart Rome, and Hepworth to Chrissie White and Henry Edwards; but, on the whole, star building in Britain was not taken very seriously.

British film players welcomed the news, in 1920, that one of the largest of the American companies, Paramount, was opening a studio in London. They had visions of regular work and of star building.

With a flourish of trumpets, the Poole Street studios in Islington were opened in premises that had once been a generating station and a tarpaulin factory. From Hollywood came Bryant Washburn, then a reigning favourite with the fans, to make *The Road to London*. It was considered a prophetic title at the time. But the enterprise was short-lived; after only a brief life, the Americans closed the studio and retired from the scene. To-day, the premises are occupied by Gainsborough Pictures.

A similar American-sponsored enterprise, The London Film Company (not to be confused with Sir Alexander Korda's venture at Denham at a much later date) met with more success. It opened an ex-skating rink at St. Margaret's, Twickenham, as a studio, and worked consistently over a long period, usually with Henry Ainley and Elizabeth Risdon as its stars.

The studio turned out several winners, including the first *Prisoner of Zenda*, and *Jelks*, *Quinney's*, and many more, and George Loane Tucker, who had risen to fame by making *Traffic in Souls*, exposé of the white slave traffic, at Universal without permission—he shot it on Carl Laemmle's stages after hours and with a minimum of capital, and then, with Jack and Harry Cohn, sold it to the boss

himself, a feat which enabled the Cohns to start their own company, Columbia—probably did more to raise the quality of British pictures at that time than any other producer.

The overall picture of the period was a scrappy one. Gaumont, at Shepherd's Bush, experimented with melodrama with a futuristic touch and went strongly for the works of H. G. Wells. Stoll, first at Surbiton and then at Cricklewood, kept up a constant flow of two-reel Sherlock Holmes and Dr. Fu Manchu thrillers interspersed with features with an exotic tinge, importing the then highly popular Sessue Hayakawa, Japanese star of American films, to play in its productions.

G. B. Samuelson, at Worton Hall, Isleworth, took up a strong patriotic line with *Sixty Years A Queen*, and a forerunner of Noel Coward's Cavalcade called *The Game of Life*, as well as more earthy and flag-wagging pictures of which *God Bless Our Red White and Blue*, and *Tinker, Tailor, Soldier, Sailor* are two representative titles.

From these studios came the top pictures of the early twenties. George K. Arthur made a great hit in the first screen version of *Kipps*. The sentimentalists wept over Matheson Lang and Ivor Novello in *Carnival* (no showing was complete without a tenor singing a theme song from the orchestra pit when Novello climbed agilely from his gondola to the balcony of the room occupied by Matheson Lang's (screen) wife). The country roared at *Alf's Button*, but British successes were too far between to grow the deep roots necessary to withstand the blast which was coming.

Germany, crushed and defeated in 1918, began slowly to get on its feet once more. Her young men, bitter and disillusioned, turned to the cinema to express their despair. They produced such unusual pictures as *The Cabinet of Dr. Caligari* and *The Hands of Orlac*.

Needing foreign currency, Germany sold their films at ridiculous prices in those countries whose money represented wealth when exchanged for Reichsmarks. Rights in their films, for the whole of Great Britain, could be bought outright for as little as £80 for a full-length feature. No British film could stand up to that sort of competition.

Not that German films destroyed British films. They only helped. The real competitor was America, and her films were being block-booked to such an extent that British studios discovered that it was not uncommon for nearly two years to elapse between completion

of a film and the day of its general release.

In 1923 producers started a British National Film League. The Prince of Wales (now Duke of Windsor) spoke at an inaugural luncheon to good effect, although he seemed to be under the impression that the film industry in Britain was quite a new thing. He practised what he preached when he asked film-goers to support British films, prevailing upon the King and Queen to attend many of the best efforts of the British studios.

But there was one thing lacking with the "British Film Week" which the National Film League launched. Exhibitors were implored to book a British picture that week. With the best will in the world they tried to comply, but there just were not sufficient British pictures, so the dust was blown off the film cans in the vaults and out came the outmoded successes of a previous decade. The public learned very quickly that the wisest thing to do during "British Film Week" was to stay away from the cinemas.

Within a year of the launching of the League the end was in sight. The Ideal Studios at Elstree, home of many of the pictures in which West End stage stars appeared, closed its doors. British and Colonial at Walthamstow ceased to function. Broadwest and Hepworth cut their schedules. London Film Company quietly faded out. Stoll and Samuelson put up the shutters. Cricks and Martin, Clarendon and several more pioneer outfits had already gone to the great beyond.

By 1924 every British film studio was shut.

The public did not care. And why, indeed, should it? From America it was getting, and would get, pictures of the calibre of *Earthbound*, *The Miracle Man*, *Foolish Wives*, *Way Down East*, *He Who Gets Slapped*, *Broken Blossoms*, *Seventh Heaven*, *Smilin' Thru*, *Over the Hill*, and *The Sheik*.

Behind the scenes, however, two or three stalwarts interested in British pictures had already decided to put up a fight. They were film director George Ridgwell, who had made some two hundred pictures, Captain Rex Davis, a popular screen hero, and Victor McLaglen. They began campaigning in 1923 for protection for British films when their cause was all but lost.

They went lobbying M.P.s in the House of Commons, wrote letters to the Press and held open-air meetings by the Irving Statue in London's Charing Cross Road. Lunch hour crowds would hear the bellow of Victor McLaglen's voice extolling the necessity for reopening Britain's studios. George Ridgwell, who had directed

for Edison and Vitagraph in America between 1910 and 1920, gave the crowds hard facts and figures about the state of the home film market.

They made such an uproar that, backed by the British Film League, they got a bill drafted that would make it compulsory for theatre proprietors to show an increasing percentage of British films on their screens.

The American companies brought their big guns to bear in the shape of word-of-mouth propaganda against the showing of British films. Forty per cent. of their revenue was then coming from British cinemas. Before World War One they had effectually kept British films out of their halls by imposing a sixty-five per cent. tariff on foreign films. Marketing films was, in those days as now, a matter of business, and no business man can afford to ignore competition when it threatens his own interests.

Sir Philip Cunliffe-Lister drafted the Films Act (commonly known at the Quota Act), but it was 1927 before it reached the Statute book. It started with a modest quota of seven and a half per cent., rising over ten years to seventeen per cent.

George Ridgwell thought that he had triumphed, but the compulsory showing of British films brought little or no grist to his own mill. Like other British film pioneers, he was often hard pressed, and when he died he was living in circumstances far from affluent.

Victor McLaglen went to Hollywood. Rex Davis's appearances became few and far between.

Naturally the American companies loathed the Quota Act. One big company, owning an important house in London's West End, encouraged toughs from the East End to patronise the theatre especially to jeer the British film which it had compulsorily to show. It was not without its humorous side. The toughs so enjoyed their immunity from the attendants that they began giving the American feature films a rowdy reception as well.

Many exhibitors cheerfully paid the fines imposed on them for not carrying out their Quota obligations. They considered it better business to pay up than show poor pictures. Others hit upon the ingenious expedient, until it was stopped, of opening their theatres when the cleaners were tidying up in the mornings and running the Quota pictures solely for their benefit, taking the British film out of the programme when the recognised starting hour came round.

Gone were the days when Betty Balfour had been almost as big a

draw as Mary Pickford in an hilarious series called *Squibs*. *Hindle Wakes* and *The Monkey's Paw*, two of Britain's biggest winners, were now but memories. In their place had arisen shoddy pictures ground out solely to answer the compulsory demands of the Quota.

The American companies established studios of their own and turned out pictures at the rate of one every three weeks at a cost of £4,000 apiece. Photography and acting were passable, but direction and scripts were atrocious.

And what if one of these Quota Quickies, as they were called, turned out to be a winner? It did the company and the studio no good at all. One of the largest of the American companies "wrote off" all its quota films as returning £3, no more and no less, no matter its actual success at the box office. In this way none of its British film could show anything but a loss even though the production budget was no higher than £5,000. This virtually meant that they were giving the theatres the Quota picture for nothing provided they rented one of their American first features. Moreover, they did not have to pay income tax on a studio which was always shown to be "in the red."

The Big Five banks had arranged to finance British film studios up to £50,000. Altogether they sunk five millions in British pictures. The leading insurance companies had underwritten the risk and realised that they had already lost three millions by their rashness. Accordingly they appointed W. C. Crocker, who had become famous as the insurance assessor who investigated a notorious gang of fire-raisers, to carry out an investigation.

At first the financiers had seen in the compulsory showing of British films the means of making big fortunes. The dream of every manufacturer, surely, must be a state in which the consumer is compelled by law to buy his goods, and the Quota Act meant just that. Good, bad, indifferent, just as long as they were pictures which moved, the theatres had got to buy them. But now they had reached such a state of worthlessness that the City realised that it stood to lose heavily if the Quota Act were rescinded because of the protests of the long-suffering film-goer.

Ridgwell, of course, had never intended the Quota Act to be thus abused. Even the financiers believed at first that the Quota pictures might be good entertainment, but every shark and shyster who could get hold of a camera and a few scenery flats, was getting backing in the City for projected Quota pictures.

The curtain on the whole sorry farce should come down on the revelations in the Crocker report, but there is only an anti-climax to our story. The City withdrew, cutting its losses. Crocker's report was never made public.

The Quota is still with us, but the quickie has all but died the death. It has been put out of its own misery, as audiences have been put out of theirs, in the only logical way, namely by the advent of British pictures which are equal, if not superior, to the American film.

That, however, is to jump the intervening stages of our story,

The first real attempt to meet the American film on equal terms. That is in story and production value as well as star names, was made by the big studios which sprang up, British film slump or no, in the middle twenties at Elstree.

There had been studios at Elstree since British pictures were in swaddling clothes. A young director named Percy Nash is reputed to have discovered the place for films. He had been a director for Hepworth and for the London Film Company.

He decided to become his own master and raised sufficient capital to start The Neptune Film Company. Nash, from his experience of working at Walton-on-Thames and St. Margaret's, Twickenham, knew that the Thames Valley was too misty to be an ideal spot for producing films. He tried the higher ground on the north of London. At Mill Hill he noticed a factory manufacturing photographic supplies and concluded he was getting out of the fog belt. Farther afield, at Boreham Wood, he found a site and built himself a small red brick studio with one stage.

He produced innumerable three-reel dramas at an overhead cost of £500 per reel and did remarkably well. He had as his nearest film neighbour a young man named H. Bruce-Wolfe, who was busy making instructional films in a hut in the middle of a field. Bruce-Wolfe had made his own camera and, when he had photographed his caddis fly or frog, or whatever happened to be his subject, he developed and printed the film himself. In all he made two thousand such films and, to his astonishment, saw them eagerly snatched up by education authorities. Modestly, he pointed out that he had only been doing it as a hobby.

In 1914 he served in the War and became imbued with the idea of making permanent pictorial records of the big battles. He had been an exhibitor, having run a little cinema of his own in 1911, Premierland, in the East End of London, and knew what he was

aiming at. With official war films and news pictures, and with the aid of models and diagrams, he made the first authentic record of modern warfare, *Armageddon*. His wife helped him and so did Foxon Cooper, then the Government adviser on film matters.

Not a renter would look at *Armageddon*. Undaunted, Bruce-Wolfe started his own renting company and finally managed to get his film put on at the Tivoli. It was an instantaneous success. He went on to make a film of the raid on Zeebrugge. Their Majesties King George V and Queen Mary went to see it at the Marble Arch Pavilion.

Thus encouraged, he made *Mons, Ypres*, and *The Battle of the Coronel and Falkland Islands*. And, from it all, grew Gaumont British Instructional, a name familiar to most British schoolmasters and schoolchildren to-day.

In Percy Nash's one stage, where he made *Disraeli* long before other producers thought of it as a subject, and from Bruce-Wolfe's hut, Elstree had its beginnings.

What has happened to the hut no one seems to know. Percy Nash's little Neptune studio is now overshadowed by the newer National studio, and by the Associated British Picture Corporation, which owns a vast studio on the opposite side of the road on a tract of land forty acres in extent—a formidable challenge to Denham.

Elstree's real boom sprang from the day when an American producer, J. D. Williams, came to Britain looking for a place to build a studio. Someone told him about Nash's quest for a fog-free site, and he, too, went to Elstree and there started British International Pictures, on the site of the extensive Associated British "lot" referred to above.

He ran up a studio which was then easily the biggest in Europe. To it were brought stars of world-wide repute, including Lillian Harvey, Lya de Putti, Richard Tauber, Monty Banks, Carl Brisson, Dorothy Gish, Betty Balfour, Lillian Hall Davies, and scores more. *Atlantic*, *Blossom Time*, *Blackmail*, *Nell Gwynne*—they are only a few of the titles of the big films that were made there.

Other studios grew up beside it. British and Dominions opened next door, with Herbert Wilcox directing *Anna Neagle*, while next to Elstree station was opened Whitehall, which became known as White-elephant when talkies came because, being so near the railway, it was found practically impossible to sound proof it.

Farther along the Shenley Road was built what is commonly reputed to be Britain's biggest studio, Amalgamated, which cost so much money that its promoters could not find any more with which to make films! During World War Two it was used for Government stores, and the legend grew up that it was the studio in which no picture had ever been made. Isolated scenes for one or two films had been staged there, however. It is now the home of Metro-Goldwyn-Mayer's British productions.

And so, as Elstree grew, the other smaller, outmoded studios closed. No longer did film actors journey to the Dallas Cairns studio at Watcombe, near Torquay, or to the studio at Bungalow Town, Shoreham-by-Sea, to the Prince's Studio at Kew Bridge, to the Zenith studio at Whetstone, on the Great North Road, or to the Windsor studio at Southend Ponds, Catford, or to Edgar Wallace's studio at Beaconsfield. In fact, many of the actors who used to play in them had already gone to Hollywood, Ronald Colman and Clive Brook amongst them.

Before the world went into a shambles for a second time in 1939, Elstree had substantial rivals in the vast London Film Productions studio which Sir Alexander Korda promoted at Denham (now Denham studios and part of the Rank organisation), and an only slightly smaller studio at nearby Pinewood.

J. D. Williams's reign at Elstree was not long. When the company started to flounder, John Maxwell, a Scottish solicitor who had had experience in running one or two cinemas, took over and linked its output with a chain of halls known then as Provincial Cinematograph Theatres, and now, like Elstree itself, part of the large Associated British Cinemas chain.

This marked the beginning of a contest between rival circuits for domination of Britain's screens. Maxwell was challenged by two bankers, Isidore and Mark Ostrer, who bought Leon Gaumont's share in the Shepherd's Bush studios and became partners with his former agent, A. C. Bromhead. They, too, decided to guarantee a fair showing for their output by starting a chain of halls—The Gaumont British Picture Corporation.

It would take thousands of words in which to detail all the ramifications and amalgamations of the various chains which have sprung from those two circuits. Briefly, the Ostrer interests went to J. Arthur Rank, who re-enters this story at a later stage. He had already linked with Oscar Deutsch and the latter's Odeon Circuit.

Thus it comes about that of Britain's four thousand cinemas about one in every four is owned either by ABC or the Rank Group, and that, just as Rank controls Denham, Pinewood and several lesser studios, so ABC is linked with Elstree and Welwyn.

But to unravel the ramifications of the two groups would be tedious and not particularly edifying to the ordinary cinema-goer. What is more important is that the groups are British, for though ABC has a link with Warner Brothers and the Rank group with Universal, the once-threatened domination of British screens by the big American companies, as when Paramount started the small but powerful Astoria chain, has come to nothing, and Britain's home-controlled theatres remain just that.

Quite a lot of film has flowed through the projectors since the rocky days of the twenties, and quite a lot of it has been sound film, but despite that tremendous revolution in our screen entertainment, we still find quite a number of talkie studios on or adjoining the sites of the former silent stages. Shepherd's Bush, Islington, Elstree, Ealing, Teddington, Isleworth—all once used to hear the whirr of the unblimped knife-grinder cameras which ground out the flower of British silent pictures—as well as some of the worst.

To the sentimentalist the Walton-on-Thames studio is the most nostalgic. Hepworth's villa, though he has long since ceased to live in it or to be connected with the studios, still stands guard at the entrance to the "lot" in the quiet of Hurst Grove, where Alma Taylor and Chrissie White were wont to arrive for the day's work on bicycles. The *cul de sac* no longer resounds, of course, to the chuffing and puffing of that delightful horseless carriage which Hepworth used for running down policemen, stopping the camera while he scattered stuffed limbs all over the road before starting filming again to show the results of the law's interference, but if one goes into the villa, now used as offices, one hangs one's hat up on the identical row of pegs upon which Hepworth used to loop the drying strips of *Rescued by Rover* and *Dumb Sagacity*, or *Saved by the Tide*.

THE SCREEN SPEAKS

IF the Warner brothers had not started to go broke the possibility is that cinema-goers would never have had talking pictures.

The cinema industry of the twenties, built up on lavish productions and world-famous stars, had no time for talking pictures. It liked the film business the way it was and saw no reason to alter it.

The Warner brothers, who had come a long, troubled way since they had seen *The Great Train Robbery* and opened their first nickelodeon and who had helped Carl Laemmle and the other independent producers to fight the Patents Company, were, in 1927, prepared to take a chance on anything new as long as it held promise of restoring their fortunes.

They had been through financial crises before. In 1918 they had saved themselves by gambling on the making of a film for which the experts predicted failure, the turning of Ambassador Gerard's book of revelations of the Kaiser's war machine, *My Four Years in Germany*, into a film. In the outcome their judgment had proved sound and they had amassed a substantial profit.

A year or so later they had gambled again, on Rin-Tin-Tin, a German police dog which a Lieutenant in the American Air Force had taken prisoner of war. For several years Rinty, as the fans called him, brought very welcome workaday profits to the Warners' coffers. They did well out of *Find Your Man* and *Where The North Begins* and it was generally said that Rinty made the money which enabled the Warners to hire Ernst Lubitsch as a director to make such sophisticated comedies for them as *The Marriage Circle* and *Lady Windermere's Fan*.

Their most important human star was John Barrymore. Harry Warner sat solemnly through twelve performances of *Hamlet* studying the famous Barrymore profile before finally suggesting to his brothers that they should take yet another chance, namely, offer the actor a picture contract.

Despite their occasional difficulties, they always managed to triumph over them.

Their "lot" boasted one small stage, two or three workshops, and employed sixty people. They could make pictures, and good ones, but they had to face the fact that their competitors—Fox, Paramount, Universal, and United Artists—owned chains of distributing agencies throughout the world. Warners could make pictures with comparative ease, but getting them into the theatres was a struggle. Finally Harry Warner, who looked after the business affairs of the company, decided that the only way to distribute the pictures was to take over a chain of already well-established distributing agencies. Accordingly, he went to Vitagraph and asked them how much they wanted for their company. The outcome was the sale outright to the Warners of Vitagraph.

The only thing the Warners now required was publicity, and, in 1924 publicity, as far as the United States was concerned, was summed up in the words "radio broadcasting." Warners bought a broadcasting station. They had it delivered to their studio in a string of lorries and, within a week, had it working. Sam Warner, in particular, was vastly interested in its workings. When Western Electric tried to sell a new invention to the film magnates of Hollywood, an invention that recorded and reproduced dialogue simultaneously with film pictures of the speakers, it was Warners, and the Warners alone, who showed interest in the proposition.

Everyone else turned the idea down out of hand.

Sound had been combined with the screen years earlier both in England and America. Alexander Graham Bell's invention of the telephone in 1876 was the initial step. Next year Thomas A. Edison brought out the phonograph, and his experiments with motion pictures a decade later were aimed at a talking picture.

It was not until 1913, however, that Edison eventually launched "talkies" with his Kinetophone. They played brief seasons in the big cities of U.S.A. and Great Britain, but after fire destroyed Edison's laboratory in 1914, production of "talkers" was never resumed.

Hollywood remembered only too well the debacle which had ended every attempt to sell the public pictures which talked. Even D. W. Griffith had risked his reputation on a sound film, *Dream Street*, in 1914. Synchronised with discs, it had been shown at the Town Hall, New York, with a complete sound score, and had proved

a hit, and newspapers had prophesied the dawn of a new era, but the Wall Street financiers had turned their backs and exhibitors were unanimous in maintaining that sound films spelt ruin.

The talkie was made possible with the invention of the three element vacuum valve. It was invented by Lee DeForest in 1907. It meant that sound could be amplified. But for five years financial failure dogged DeForest until, in 1912, he gave a demonstration to Western Electric, who purchased it from him for use in telephony.

Dr. Harold D. Arnold improved the invention and made it amplify sound, first by 130 times the original volume, and finally 1,000 times. In 1914 it went into war service.

In 1920, Western Electric resumed research. An Englishman, S. S. A. Watkins, took up the work for the company. He set up a small studio at 463 West Street, New York, and the office staff talked and sang for the films he made. The room was small and the camera was placed outside the closed window to shoot into the room—thus insulating the sound which it made. Soon he was using professional artistes.

Sound-on-film experiments were also being carried out, but the gramophone record had forty years of manufacturing perfection behind it.

Western Electric tried to sell the idea to the film companies, but, though they were impressed by the demonstrations, they were too nervous, because of past failures of talking film devices, to pursue the matter.

Nevertheless, Sam Warner went to see the Western Electric demonstration, and was captivated by the excellence of the synchronisation. True, the sounds which came from the loud-speakers were distorted and blurred, but they marked an advance. Sam Warner knew that his business-minded brother would not entertain the idea of experimenting with talking pictures, and a ruse had to be resorted to to get Harry to attend a demonstration. Before it was half over, Sam knew his enthusiasm had not been misplaced, but Harry was a showman as well as a business man, and he knew that, good as the synchronisation was, no audience would stand for such a travesty of the human voice. It was only when the dialogue film gave place to an instrumentalist that he had the brain-wave which was to disrupt the entire moving picture business of the world.

Already surfeited with lavish movie fare, cinema patrons were demanding make-weight in the form of orchestras on the stage,

variety turns, and other novelties. The big super houses could afford lavish expenditure on these adjuncts to the regular movie programme, but the seating capacities of the small halls did not permit of costly presentations of the kind. Harry Warner's inspiration took the form of making variety turns, famous orchestras and operatic stars as short sound films which could be hired out to the small halls at a fraction of the cost entailed in hiring real stage acts.

The possibilities of sending out complete musical scores with their full length feature films, thus saving the cinemas the cost of an orchestra, were not lost sight of, but to make *talking* films, the Warners agreed, was to invite disaster.

The acquisition of the Vitagraph Company had included the studio at Flatbush, Brooklyn, where John Bunny and Flora Finch, Mr. and Mrs. Sidney Drew, Maurice Costello and Florence Turner had made movie history. It had originally been a glass-top, that is its stages were simply glass-houses which, with the passing of time and the universal adoption of artificial lighting for interior sets, had been blackened over to exclude daylight. When it rained, the noise inside the studio was like muffled machine-gun-fire, whilst the heat of the sun's rays pouring on the glass during summer months was terrific. It was not particularly suitable for the production of silents, let alone talkies, but the Warners were out to learn by experience, and like everyone else who graduates in that hard college, they had to pay for the full course.

They built a studio, fifty feet square and thirty feet high inside the glass-top. They made it soundproof by hanging carpets from the property store all over this huge box.

The first thing they learnt was that the ordinary movie camera made so much noise that it drowned everything the microphone was supposed to pick up. Consequently they had to place the cameras in sound-proof booths, which meant that the camera was back where it was in the days before Griffith discovered the value of camera movement.

Brooklyn had not seemed particularly noisy, but, as soon as one listened-in on the talkie apparatus in the Flatbush studio, one became aware that it was full of running motors, whistling errand-boys, the whirr of aeroplane engines—the whole made hideous with the hoot of far-off tugs and the clang of street cars. There was nothing for it but to soundproof the studio, which meant that the actors were hermetically sealed up during the shooting of scenes.

It was also discovered that the arc lights (then used to light the scenes on all motion picture stages) gave off a humming sound which, though inaudible to the ear, was picked up by the microphone.

The system on which Warners were working was a disc system, the discs being sixteen-inch single-sided gramophone records. Instead of playing at the customary eighty revolutions a minute, the record rotated at only thirty-three, thus the playing time of the record was lengthened to approximately ten minutes; a reel of film of one thousand feet took some fifteen minutes to show, so, in order to bring the showing time of a reel of film and the playing of the record into the same time limit, the photographing and showing of films was increased fifty per cent, which necessitated ninety feet of film passing through the camera every minute in place of the sixty feet used in silent days, a thousand-foot reel lasting but ten minutes on the screen.

Though records have now been discarded in favour of the sound-on-film system, talkies are still taken and projected fifty per cent faster than the silent films of old. As all films are projected at the same speed at which they are taken, there is no noticeable difference on the screen.

These problems paled beside the problem of shooting one thousand feet of film without stopping to alter camera angles or insert close-ups, for the exigencies of recording on discs made it imperative that the starting-point on the film should coincide with the starting-point of the cutting stylus on the soft wax record, and once both had started "in step" it was fatal to stop if synchronisation was not to be lost.

In recording musical accompaniments the already completed silent picture was projected on a screen in the studio whilst an orchestra played to it, the microphones recording the sound. The making of short films of instrumentalists offered a bigger problem, for no one would sit patiently through one ten-minute-longshot of a man playing an instrument.

It was overcome in part by connecting two cameras up with the recording apparatus, one having a telescopic lens to give close-ups. The two negatives were then laid side by side and extracts were cut out of each. In this way the composite film was a combination of long shots from one film and close-ups from the other, balanced up foot for foot in length.

This was no solution to the difficulties encountered in recording playlets in which change of scene was essential, so hare-brained

expedients had to be resorted to.

In a short dealing with the adventures of "doughboys" in France, which called for the inside of an estaminet, a front-line trench, and a jail, the scenes were built side by side in the studio and the shots of the estaminet were arranged to end with one of the boys getting excited and blowing out the lamp. At this point the cameras, without stopping, slewed round on to the trench scene, while the recording continued without a break. Similarly with the change from trench to jail, the cameras simply faded out, were slewed round on to the jail scene (which the actors had rushed into during the brief interval during which the camera lens was covered) and the action proceeded, the sound recording stylus continuing uninterruptedly.

While the Warners were elucidating their problem, other riddles were being solved in studios as far apart as Clapham, London, and Berlin.

The Clapham, London studio had started life as assembly rooms. It had been many different things in turn; during one phase of its history in 1907, it had been a cinema. It was situated in the Clapham Road quite close to a railway bridge over which steam and electric trains thundered every few minutes. Like the Vitagraph studio at Flatbush, it had been a silent film studio, the Holmfirth Producing Company making melodramas there starring Queenie Thomas.

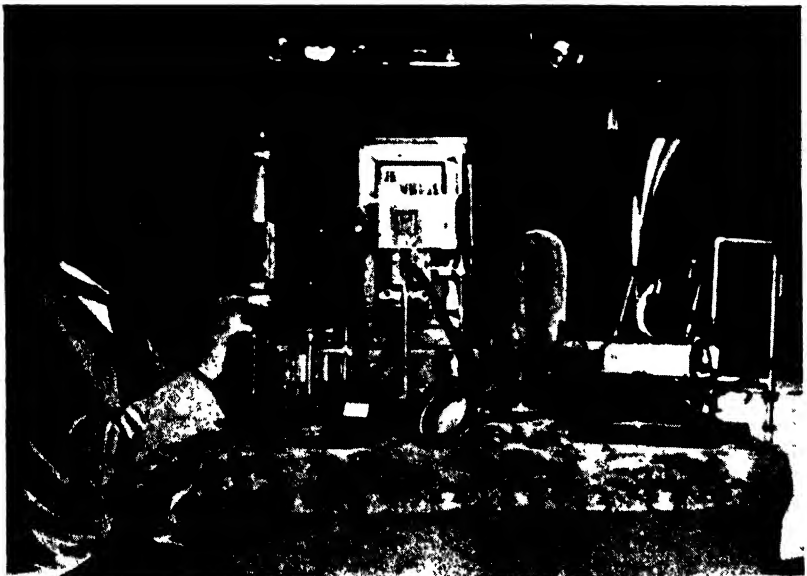
It became the home of Lee De Forest Phonofilms in 1925, and the production of sound-on-film talkies—that is to say, pictures with a photographic record of the actors' voices on the edge of the film—was begun.

Already, in 1924, Dr. Lee De Forest had produced a two-reel talking picture by this sound-on-film system in America. Called *Love's Old Sweet Song*, it featured Una Merkel and De Forest's wife, an accomplished singer. When the film was completed, its inventor expected to exploit it as a variety "turn" on the music-halls but met with scant success.

"Talking pictures now are a bed of roses in comparison with the torture we went through in the De Forest film," Una Merkel says. "I was in my 'teens' and had got the job largely through my resemblance to Lilian Gish whom I had understudied. The room in which we worked was just large enough to accommodate one set, and was heavily padded to keep out unnecessary noises. It also kept out fresh air. That precaution was due to the extreme sensitivity of the recorder, which looked like two smoke-stacks with a connecting wire. When I stopped speaking and the leading man answered me, they had to turn all sorts of screws and levers to accommodate the



(Above) Eugene Lauste (*centre*) producing a sound-on-film talkie on a makeshift open-air stage in a garden in the South London suburb of Brixton in August 1913 (*Below*) Talkie inventor Eugene Lauste with his original apparatus for recording sound photographically on film. His invention was long retarded by lack of satisfactory amplifying devices





(Above) The first Warner sound stage, in the Vitagraph studio in Brooklyn, where the first Vitaphone sound-on-disc shorts were made in 1926



(Left) The noise of the camera is picked up by the microphone and the cameraman is temporarily doomed to occupy a cramped sound-proofed booth in early talkie days. Later the camera itself was soundproofed, thus freeing the operator and restoring the camera's latitude for securing varied angles

different tone of voice.

"I don't know what became of the picture, but I do know that we worked harder than on any ten-reel picture I have appeared in since."

To photograph a voice as in Phonofilm and other "sound on film" systems, sounds, and is, an impossibility. Actually the thing photographed is the reflected light from a mirror suspended on a Duralumin wire. Duralumin is so sensitive to the pulsations set up by the actors' voices or music picked up by a microphone that the wire twists slightly in sympathy with them. The light from the mirror is focused on the edge of the film where it is photographically recorded as a "graph" composed of solid "hills" and clear "valleys".

On the projector in the theatre is fixed a small lamp, having a steady glow, which shines on to the sound-track through a narrow slit. On the opposite side of the slit is a photo-electric cell which is so sensitive to light that it flickers in sympathy with the amount of light filtered through the "valleys" on the edge of the film.

This flickering, in turn, sets up electrical impulses which vibrate the diaphragms of the amplifiers behind the screen, thus creating in the theatre a life-like re-echo of the voices as recorded in the studio.

This does not pretend to be a scientific explanation, but a mere outline of the miracle of mechanism which gives us our talkies to-day, and is necessary here to enable the reader to realise the difference between films using the synchronised disc system, with which Warner Brothers revolutionised the film business, but which was later discarded, and the sound-on-film system which is the accepted one throughout the world to-day.

Everyone knows that the introduction of talkies caused upheaval, but still greater chaos, if such were possible, was caused by the introduction of two totally different talking picture systems within a few months of each other.

Compared with the old Vitagraph studios, in which Warners were working, the Clapham Road studio was even worse for the task in hand. The noise of the passing trains was only partially obliterated by the hanging of velvet and canvas "screens," and, when a fast goods train went through Clapham, De Forest phono-films had to call a halt.

Sound-on-film had the great advantage over sound-on-disc that it enabled the producer to cut the film into scenes, whereas it was impossible to cut a disc. (Actually, sound and picture are not opposite

to one another on the film, but nineteen "frames" of the film apart because the lens of the projector is several inches above the apparatus for reproducing the sound to enable the film, which is projected intermittently as far as the picture part is concerned, to smooth out into a continuous running movement where the sound is concerned. Therefore the photographic image must be several inches away from its corresponding sound on the film, but this is only a matter for adjustment in printing).

Phonofilm recording did not, therefore, present quite the same difficulties as faced the Brooklyn pioneers, nevertheless Miles Mander who directed these early sound-on-film pictures, found the road by no means strewn with roses.

The Clapham studio camera boasted only one lens—a two-inch one. It had no fading device or iris and no finder that was any use, while the stage equipment consisted of two old-fashioned spotlights and two banks of mercury vapour lamps. But the progress of talkie technique made surprising strides under these adverse conditions. Two of the early pictures, *As We Lie* and *The Sentence of Death*, contained sound, music and dialogue. It was possible to include exterior scenes by taking the apparatus outdoors, whereas the disc system was too cumbersome. It effectively recorded the voices of actors talking off—that is to say, shots of the listener were shown to the accompaniment of the voice of the person speaking to the subject of the close-up; while change of shot was practically no problem at all. In one film more than fifty different scenes and individual shots were included in one thousand three hundred feet.

The early sound-on-film talkies had much in common with the silent film; there was none of the camera-bolted-to-the-floor flavour of the early disc talkies; close-ups, mid shots, long shots, flashes, exteriors and interiors, all followed one another in rapid succession, thus preserving the essential fluidity of the moving picture medium, and there was no mad scramble to include sound or dialogue on every inch of the picture, a fault which marred most of the early American talkies, for Miles Mander was not afraid of using silence as well as sound. A great deal of his early technique was swamped by the later American invasion and it was some time before talkies regained the mobility of the silent film.

Lilian Hall Davis, Owen Nares, Dorothy Boyd, Malcolm Keen and Mary Clare all figured in these early British talkie ventures, which were exhibited, as were the first silent movies, as items in

music-hall programmes.

So far as Britain is concerned, the very first theatre built and equipped specially for showing talkies was in the British Empire Exhibition at Wembley, in 1925, where, for sixpence, one could experience an hour of weird and wonderful sounds accompanied by moving pictures. In those days nine voices out of ten recorded badly on the primitive apparatus then in use, and the distortion, surface noise and the "frying" and sizzling sounds which emanated from the speakers behind the screen did not bear a true resemblance to real life. But these defects were not to be found in the early British talkies alone, many of the first Warner shorts startled audiences with sighs which sounded like un-oiled hinges and slammed doors which sounded no louder than the dropping of a powder puff.

As the pioneers pushed ahead other claimants to honours in the talkie field entered the arena.

On February 11th, 1926, a British Acoustic experimental film called *A Wet Night*, featuring Arthur Chesney, a well-known London stage actor, was completed at the Weissensee studio in Berlin.

The first films to be made in Britain by this system were produced at Gaumont's Lime Grove studio at Shepherd's Bush, at least a year before Warners presented their sensationally successful, *The Singing Fool*.

The sound proofing at Shepherd's Bush consisted of a bell tent erected in the studio, and the synchronisation marks were made by clashing a couple of saucepan lids together.

The unit went to Buckingham Palace, with permission from King George V, and filmed the Changing of the Guard with sound. When the film was shown in the studio everybody was amazed. The possibilities which it opened up were staggering, but there the thing inexplicably languished, and America beat Britain with the first talkie. Almost simultaneously, in Hollywood and New York, experiments were being made with the sound-on-film system by William Fox.

Like the Warners, William Fox sprang from humble stock. His father ran a general store in the village of Tulchva, in Hungary. Then the family emigrated to America, and young William's first job was going around the tenements where they lived selling stove blacking. When trade fell off, he sold cough lozenges, at which he did so well that he was able to employ several other boys on a commission basis. Other jobs followed—in clothing stores and as an

umbrella dealer—until he blossomed out, with a partner, as a vaudeville turn. Sometimes they got as much as twelve dollars for giving their act at local dances.

Other side-lines brought Fox a little capital, with which he decided to purchase an automatic amusement arcade. One of the attractions was Edison's Kinetoscope peep-show. The business done by the machines was poor, and Fox, disappointed, had to think of ways and means to get the public into the show. Upstairs there were some empty rooms, and he turned one of these into a miniature movie theatre. Entrance was from a doorway giving directly on to the street. After the picture had been shown, so Fox planned, the audience was to leave by a staircase at the back, and thus pass through the arcade, where they could not fail to be attracted by the Kinetoscopes. It misfired because the public did not go up the stairs in the first place.

Fox then hired a conjuror and had him stand at the foot of the staircase leading to the cinema. The man performed a number of tricks to attract a crowd and then, under pretence that the people were causing obstruction, invited them upstairs to see a further display, promising them that the exhibition was free. Having got them seated and shown one or two more tricks, it would be announced that something more marvellous was to be presented—living pictures—if they would pay a small fee.

In a few days the marvel of Fox's show spread through the district, and soon Fox had fifteen shows running in Brooklyn and New York. In the main, they consisted of nothing more elaborate than a large empty room, a projector, a linen sheet, and a couple of hundred chairs. He acquired one or two important theatres as well. The setting up of a film-renting concern followed naturally, and, when the Patents Company came into existence, Fox was aligned with the Independents. Like Laemmle and the Warners, he came out of the struggle victorious. A few years later Fox was, with Lasky, Zukor, Goldwyn and Laemmle, one of the acknowledged heads of the American motion picture business.

When news of Warner Brothers' talking pictures reached him, he opined that synchronisation of movies with gramophone discs would never be satisfactory and insisted that both pictures and sound must be on the same celluloid base.

In the spring of 1926, he walked into his office and was asked by his brother-in-law, Jack Leo, to go immediately to the projection-room. Fox had visited the projection-room at his New York office

every week for years ; but it took on a new aspect when a picture of a canary in a cage was thrown on the screen and the bird began to sing. This was followed by a short of a singing Chinese, who played a ukulele. The sound was not perfect but it synchronised and was an advance on other talking pictures which Fox had seen.

In the room above the projection theatre a small sound-proof stage had been equipped, and it was explained to Fox that talkies could only be made in buildings insulated against extraneous sounds.

Fox was disappointed. " That means that pictures would have to be set wholly in interiors, cutting out half of the charm of the movies—natural backgrounds, sunlight, the real countryside and city streets ? " They assured him it was inevitable.

Fox sought an interview with Case, the inventor of the Movietone system. He said : " I'll give you a million dollars to spend if, within four months, you can make this thing work out of doors." Within a couple of months Case asked Fox to go into the projection-room.

On the screen were roosters crowing, locomotives tearing over bridges, cowboys thundering after war-whooping Indians.

Fox's million dollars had been well spent.

Like the Warners, Fox bethought himself how the revolutionary invention could be used to the best pecuniary advantage. The Warners were using Vitaphone, as they called their disc system, for variety shorts, and Fox, at first, did not see the full-length dialogue picture as either practicable or, from the showman's point of view, desirable. The legend that pictures which talked merely shouted " Failure ! " died hard.

News-reels, however, had become monotonous and audiences were getting tired of the never-ending cycle of beauty queens, battleship launchings, athletic events and quaint customs which made up the contents of ninety-nine news-reels out of every hundred. If sound were added, news films would not only be given a new lease of life, but their scope would be broadened ; statesmen making speeches, all the sounds of the huge crowds at the football matches, the drone of aeroplane engines on record-breaking flights, the blare of military bands, and so on, would bring events, living and vibrant, to cinema audiences with a reality which no newspaper could emulate. Thus was Fox Movietone News born.

Camera-men, equipped for the first time with cameras which recorded sound as well as pictures, were sent out to bring in real news.

Things were moving fast with William Fox, but even faster with the Warner brothers.

Already the Vitagraph studio had proved inadequate mainly owing to its bad acoustics, and the experimenters, still groping towards perfect recording, decided that a theatre, preferably an opera-house, would prove the ideal building in which to record sound films. Consequently the "sets" and equipment were packed on lorries and taken from Brooklyn through the heart of New York to the deserted Manhattan Opera House. The stalls of the old theatre were boarded over and batteries of incandescent lights mounted above the stage. It was only a make-shift studio, and there was no monitoring room for the expert who "mixes" the sound, except a room at the back of the topmost circle.

To add to their difficulties, the rooms in the front of the theatre had already been sub-let by the owners as a Masonic Lodge, and the Masons demanded the use of all of them at night. The Warner technicians had to shift out their apparatus in the late afternoon and put it all back again each morning.

Engineers started boring a tunnel under Manhattan, and the delicate recording instruments were completely thrown out of gear by the concussion of the blasting operations going on below ground. There was nothing for it but to go to Hollywood.

On the Warner "lot" in Hollywood the first sound-proof studio designed for the production of talkies came into being.

The technique of disc-synchronised talkies had advanced. Each shot was now made on a separate wax disc and all of them were re-recorded when the film was complete. No longer did the camera have to swerve unceasingly from one set to another.

The first all-sound film programme of shorts was given at the Warner theatre in New York on August 6th, 1926.

It was a hot night, but the usually quiet 51st and 52nd Streets in New York City were swarming with people.

Stage, operatic and social celebrities converged on the Warner Theatre, mounted policemen leaned their horses against solid walls of spectators, struggling fans ripped the wrap off their favourite, Estelle Taylor, and even though her husband was Jack Dempsey, world's heavyweight champion, it took a special squad to rescue her.

Inside the theatre, at 8.30 p.m., Warner Brothers started their first public presentation of Vitaphone before an excited audience.

The programme consisted of seven short vocal and musical

subjects and the feature, *Don Juan*, with John Barrymore.

It was introduced, from the screen, by Will H. Hays, then president of the Motion Picture Producers and Distributors of America.

Don Juan was no talkie but a silent film to which a musical score played by the New York Philharmonic Orchestra had been synchronised.

So great was the Warners' concern that everything should go without a hitch that they had the projectors duplicated. Thus projectors Nos. 1 and 2 both had copies of Part One on them, while projectors 3 and 4 both had copies of Part Two. The corresponding records were also in duplicate. When Part One was shown both projectors bearing that part ran simultaneously, though the iron fire shutter was closed in front of one of them. In this way, if any mishap occurred to the film or the record, all the operators (there were three to each machine) had to do was to clap down the shutter on the faulty machine and open up on the one alongside, which was then running at exactly the same scene.

(Despite these precautions a mishap did occur, but fortunately not on the opening night—an operator put on the wrong record for the Will Hays film and the startled audience heard the Czar of Motion Pictures give a perfect imitation of a banjo solo instead of his promised speech).

The programme was highly successful. Next day the American Press echoed Will H. Hays' speech from the screen. They confidently predicted a new era, and a boundless future for the sound film.

Sound did not, in the event, revolutionise screen entertainment overnight. The heads of all the other companies, except one, were so unimpressed that they decided not to enter production or exhibition of sound pictures.

Whatever the night of August 6th, 1926, failed to achieve in the film industry as a whole, it certainly tested the courage of the Warner brothers and undoubtedly marked the birth of the talking picture as we know it to-day. The Warners were still dubious about committing themselves completely by introducing dialogue into full-length feature films. That the public liked talking shorts there was no doubt, but that they would accept an hour-and-a-half of undiluted dialogue was another matter, and it was actually forbidden in the Warner publicity department to use the phrase "talking pictures" in connection with their Vitaphone productions.

The public would accept musical accompaniment mechanically reproduced, that alone was certain, and, for a time, the Warners were content with that. During the year which followed they put out two more films with musical scores on discs—*The Better 'Ole* and *When A Man Loves*. Both ran concurrently with *Don Juan* and all three were successful, but the rival companies were still sceptical, all except William Fox who now began to compete in earnest. His first sound-on-film short was shown on January 21st, 1927, with his big silent feature, *What Price Glory*. Four months later he showed his first film with a synchronised musical accompaniment, *Seventh Heaven*.

The first Fox Movietone news reel was shown at the Roxy Theatre on October 28th, 1927—it included King George V, the Prince of Wales, Lloyd George, Marshal Foch, Poincare, Ramsay MacDonald and the Crown Prince of Sweden, amongst other notabilities.

In the meantime, Warners decided to introduce one or two songs into an otherwise silent picture. Al Jolson, enormously popular on the American vaudeville stage, was chosen to put them over. The picture was *The Jazz Singer*.

Around it has grown up the legend that Al Jolson accidentally interpolated the words " Say, Ma, listen to this ! " at the conclusion of a song as he turned to the actress who was playing his mother. It occurred in the seventh reel, that is near the end of the film, and the story goes that Sam Warner considered that it was too trivial to bother about and allowed it to remain in the film. On the opening night the audience, according to this story, gasped with astonishment at its natural spontaneity and henceforth the future of films wholly devoted to spoken dialogue was assured.

However, facts do not corroborate this version in any particular. A recent examination of a print of the film now in the Museum of Modern Art in New York reveals that Jolson starts talking in the second reel. The scene is Coffee Dan's café and he is being applauded for his singing of *Dirty Hands*, *Dirty Face* when he delivers a catchphrase which had endeared him to millions in America's vaudeville theatres—" Wait a minute . . . wait a minute. You ain't heard nothing yet ! " The line was followed by others and was obviously not accidental.

As the sentence which ushered in the talkie era of the screen its " You ain't heard nothing yet ! " was far more prophetic than the legendary " Say, Ma, listen to this."

The Jazz Singer opened at the Warner Theatre on October 6th, 1927. Everyone who was in any way connected with the movie business and who could get hold of a ticket crammed into the vestibule long before the starting time. Movie fans rubbed shoulders with stars, and stage hands with the fashionable leaders of New York Society. No one quite knew what to expect, but that they all expected something revolutionary went without saying. Less than a year before the Warners had taken New York by surprise with their all-sound programme, now they promised a fresh thrill with a feature-length picture which sang. As the audience at last settled in its seats and the lights dimmed out in the theatre and the great curtains swept apart and the first sounds of the Vitaphone accompaniment came from behind the screen everyone sat silent, tense, expectant. The picture progressed more or less like any other movie, except that there was no orchestra in the pit below the screen, the music coming from loudspeakers set behind it.

When Al Jolson uttered the first words of spoken dialogue following his rendition of *Dirty Hands*, *Dirty Face*, the audience was electrified. Experienced theatre men knew from the sensation it caused that the public would at last accept talkies as screen entertainment.

A drama, more poignant than anything contained in the film, because it was real, was, as has so often happened before in the history of the movies, being enacted behind the scenes. The enthusiastic audience enjoying itself at the world's première of the first talkie was quite unaware that what they were really seeing was a monument to a man who had not lived to see the fulfilment of his ambition. For, as *The Jazz Singer* unwound its triumphant way on the projectors of the Warner Theatre, there was not one of the Warner brothers in the theatre to see the première that was to make or break them. Sam Warner lay dead, stricken down by pneumonia twenty-four hours before the show, and his brothers were racing to his bedside. Harry and Albert reached him three hours too late.

When *The Jazz Singer* was released only one hundred theatres in America were wired for sound films.

The rest of the film trade sat back to see how the Warners were going to get a return on a picture which could only play at one hundred theatres.

The Warners had foreseen this difficulty. They knew that small exhibitors would not risk money on installing sound apparatus lest the novelty wore off the talking pictures and they were left with

expensive but unwanted machines on their hands. They solved the problem by arranging hire purchase terms for the supply of the apparatus.

Again they were out of a tight corner, and *The Jazz Singer* was soon showing so widely that it took three-and-a-half million dollars at the box office, or the same amount as D. W. Griffith's most famous of all silent films, *The Birth of a Nation*, had grossed. *The Singing Fool* set a new record, with five million dollars changing hands at the theatre box offices. There have been pictures which have taken far more money, *Gone With the Wind* took thirty-two million dollars and *For Whom the Bell Tolls* took ten million, but the average popular success to-day, with admission prices far higher than a couple of decades ago, will be considered to be doing very nicely if it earns two and a half million dollars in America.

In the first two years of talkies, cinema attendances in America jumped from fifty-seven millions to ninety-five millions, despite the fact that the nation was then in the throes of a depression.

Following the success of *The Jazz Singer* the other companies made a pact between themselves not to enter the talking picture field. They reasoned that Warners and Fox could not keep up a sufficient flow of films to keep the novelty alive, but, by the end of 1927, alarmed by the tremendous crowds which the sound films were attracting, they severally went to the patentees of the sound systems and obtained licences to make talking films.

To counteract this, Warners bought five hundred theatres so as to be certain of a showing for their own films. Early in 1928 they were putting short talking sequences into such pictures as *Tenderloin* and *Glorious Betsy*.

Jack Warner went on shooting Vitaphone shorts at the rate of four a week, and used his spare time to shoot scenes for a pet project—nothing less than a full length all talking film called *The Lights of New York*. It had started as a two reeler but everyone in the studio became so interested in it that it went on for five reels. It was only moderately successful. It was a gangster story in which two youngsters from a small town nearly took the wrong road when hypnotised by the fast talkers and quick shooters of the underworld. Warners were to crusade variations of that story many times afterwards in *Little Caesar*, *Public Enemy*, and to expose other undesirable elements in America's daily life in *Black Legion* (the Ku Klux Klan), *I Am a Fugitive From a Chain Gang* (the penal settlements) and *Black Fury*,

exposé of the coal bosses' hostility to the labour unions. Perhaps born of their own experience in fighting the Patents Company, the Warners became the champions of the persecuted in such pictures as *The Life of Emile Zola*, with the notorious Dreyfus case as its focal point, *The Story of Louis Pasteur*, in which Pasteur faces public contumely before he proves the value of inoculation, and *The Magic Bullet*, with its publicly despised but invaluable quest by Dr. Ehrlich for a treatment for the venereal diseases.

Britain was slow to follow Hollywood's lead. English exhibitors and producers took the stories of the talkies' success in America with a pinch of salt. The general opinion seemed to be that the talkies were merely a passing phase and that it would be foolhardy to jeopardise the position of the British industry at that juncture, for the Quota Act had just come into force.

The Jazz Singer opened at the Piccadilly Theatre on September 27th, 1928, and a talkie of Edgar Wallace's play, *The Terror* followed it in October of the same year.

Britain was nearly a year behind America in the talkie race, for race it soon became. There was no doubt that the British public was just as enthusiastic about talkies as its American cousins, but the newspapers busied themselves with printing the opinions of famous persons, who probably did not go to the cinema anyway, on the new innovation. Almost without exception, overwhelming failure was predicted.

But the public knew what it wanted and it cared little that the sounds emanating from the speakers were harsh or that the films themselves had little but banalities to utter.

The British film industry at last became aware that all was not well in its camp. The public were deserting silent pictures, even good ones, to spend their money on talkies.

Burlington Pictures, at Elstree, had on the stocks an almost completed picture called *Kitty* from a novel by Warwick Deeping. They decided to make the last reels with dialogue.

The difficulties were many. There were no sound-proof stages in Britain, if one excepts the little Phonofilm studio at Clapham, and but a handful of technicians versed in the production of sound films. Accordingly, it was arranged to ship the stars to New York and to complete *Kitty* in a sound-proof studio there.

The first half of the film was sound synchronised but without dialogue. The first spoken word was introduced in the middle of a

scene. John Stuart, as the paralysed hero separated from his wife by his tyrannical mother, is enjoying an excursion by car to an up-river tea-house; seated in the car, he espies his wife on the other side of the road. The wife, Estelle Brody, runs across the road and, leaning over the side of the car, her husband greets her: "Oh, my dear." The roadway scenes were actually made up-river, but the shot of Estelle Brody running in and leaning over to her husband was made in the sound-proof studio in New York, but so cleverly were the shots matched that film-goers did not know that a distance of four thousand miles separated long-shot from close-up.

Prompted by the success of *Kitty*, Elstree turned its attention to making Britain's first full-length talkie. The task was entrusted to Alfred Hitchcock who was given *Blackmail*, a picturisation of a stage play to direct. Anny Ondra, a German star, who could not speak English, was given the lead, and Joan Barry, then an unknown had to double throughout the picture for the star's voice.

The Gaumont Company followed with *High Treason*, and it was not long before all the other British film companies found themselves forced by public clamour into turning their attention to sound films.

Soon Hollywood was making a steady stream of talkies that were entertainment as well as novelties—*The Trial of Mary Dugan*, *The Hometowners*, *In Old Arizona* (the first outdoor talkie), and *The Broadway Melody* and many more.

"One hundred per cent talking" became the slogan of the day. Orchestras were banished from the theatres and, to this day, Hollywood or Elstree would no more think of producing a silent film than a set of magic lantern slides.

For more than thirty years silent pictures entertained audiences by their unique story-telling technique. At least two films were produced which owed nothing even to the printed word—Charles Ray's *The Old Swimming Hole* and Henry Edward's *Lily of the Alley*. They were "cinema" pure and simple. That the perfection in its medium which the silent picture attained should be completely missing from the screen to-day is surely a loss to the film-goer. Film directors now weave their story-telling spell without recourse to too many words. There are even some few stories which would be better presented in silent form; perhaps the film with a sound synchronised accompaniment alone may make its re-appearance one day. Strange things have happened before in the cinema's history.

There have been many divergent uses of sound since the first all-

talking days. In *All Quiet on the Western Front* speech was used sparingly ; the rumble of the barrage in the war scenes, the uncanny silences of the night—such were the contrasts which made it memorable as a piece of good filmcraft in the then comparatively new medium.

On the other hand *Front Page* crammed more dialogue into each foot of film than has ever been achieved before or since. It was a novelty. It was invigorating, and it had a tremendous popularity, but it did not advance the sound film.

Hallelujah was to capture the sounds of the outdoors, the brushing of the branches of a tree, the song of the birds and the rustling of a rabbit in the undergrowth but again it was not adding anything to established sound film technique.

Sound had delivered a death blow to the Sennett type of comedian. Their wild antics needed no words ; when they spoke they shattered the illusion, which they had built up over the years, that they were immortal drolls. Speech brought them down to earth with a bump ; they were revealed to be mortal and worse—just tiresome buffoons.

When Walt Disney scored heavily with sound cartoons, Sennett withdrew. He summed up his situation to me in a typical Sennett sentence : “ Disney can make a Big Bad Wolf come down a chimney and burn his seat on a red hot stove but if I did that with a real animal all the societies for the prevention of cruelty and the women's clubs would knock the daylight out of me.”

With the passing of a few years, the screen began to forget about experimenting with sound. It took the easy line and made the most of the wittily written stage play for its appeal. Noel Coward's *Private Lives* was a big hit and soon film-goers were encountering the Lunts in *The Guardsman*.

The last experiment was to be Eugene O'Neill's *Strange Interlude* in which the characters speak their thoughts aloud. Film-goers were not entranced. George Arliss, acting Alexander Hamilton, Voltaire, Disraeli, Rothschild, Cardinal Richelieu and the Iron Duke (all of them resembling Arliss and each other) was much more to the liking of audiences, audiences who were still more interested in the personality of the leading player than the film director's craft.

XVIII

BRITISH FILMS ARE BORN AGAIN

IT took the second World War to lift the British picture out of the doldrums of the Quota quickies and to put it where it is now, not only far ahead of what it had been in the heyday of Hepworth and the London Film Company but even abreast of its American opposite number.

The outbreak of the war did not open propitiously for British pictures. For a few weeks, under the emergency regulations, every cinema in the land was closed. Stars and technicians joined up. The Ministry of Aircraft Production commandeered most of the studios because their big stages were ideally suited for the manufacture of planes. Other studios, Wembley and Pinewood among them, were enlisted for the war effort and were devoted only to the making of films needed in the training of the fighting forces. Elstree was commandeered as a depot for equipping troops.

The outlook was gloomy. The government was not unaware, however, of the need for British films.

People faced with the rigours of war need relaxation and escapism. The film, too, is a powerful instrument, when rightly used, for building morale.

Gradually at first, and then with more and more decision, the authorities began helping the remaining film makers.

Only a few years before, film directors had been fined for obstruction when they went out in the streets with a camera. (One was even fined because, filming in a garden behind railings, a crowd collected outside to watch). In vain did cameramen plead that their apparatus caused no more inconvenience than the brewer's drayman who opens cellar flaps and puts ropes across the pavement to lower barrels. Officialdom frowned on the movies then and film makers had to suffer these pin pricks with the best grace they could muster.

Now the situation was reversed. The authorities wanted films to be made and were anxious to co-operate. Not only were planes,

warships, and troops placed at the disposal of film directors, but stars who had enlisted were actually directed by their C.O.'s to report at Denham and other studios for orders.

From America had come pictures of the calibre of *Arrowsmith*, *Lost Horizon*, *42nd Street* and scores more. Now Britain, with governmental encouragement behind its film industry, started to turn out pictures which were equally to the liking of cinema patrons because they saw their daily lives under the rigour of war as they knew it.

Neutral America, with all the sympathy in the world, began to make films with a war background. There was no mistaking with which side her sympathies rested. Her films were couched in terms which made the British the heroes of the hour.

The British do not care for heroics, and when Miss Betty Grable was shown not only driving a staff car but acting as a St. John Ambulance nurse (in Red Cross uniform) on the Underground, as well as intermittently wearing a service garb of her own invention the better to dance with officers at swank West End floor shows, audiences scoffed. When, in another film, in which an Air Raid Warden delivered, in a coal cart, a bombed out girl to a side street in Soho, where she was billeted on a bachelor tobacconist who was a true lineal descendant of Jack the Ripper, audiences thought things were getting beyond a joke.

From the British studios came *The Gentle Sex*, story of the girl drivers of the ATS, and *Millions Like Us*, drama of the diverse types of women who were called up for compulsory service at the factory benches. No false heroics marred *The Lamp Still Burns*, the story of the hospital nurse. The films about the fighting services were second to none—*The Lion Has Wings*, *One of Our Aircraft is Missing*, *Flying Fortress*, *We Dive at Dawn* and *The Way Ahead*.

Perhaps a special place will be reserved in most cinema-goer's hearts for the sweep of Noel Coward's production, *In Which We Serve*. How Wardour Street haggled for it, American renters vying with each other to underbid for it, until, dickering too long, it went from under their noses to British Lion, a company which was not then releasing anything much more ambitious than Westerns made by Gene Autry (to-day it is linked with Sir Alexander Korda as the distributing medium for his many studios).

For the first time in British film history, British films were ousting American pictures and were creating an entirely new supply of

directors, technicians and stars. Some of the films, such as *The First of the Few* in which Leslie Howard starred, and *The Adventures of Tartu*, in which Robert Donat played a secret service man in the Nazi-occupied Skoda works in Czechoslovakia, used established stars, but many others devoted themselves to introducing as top liners players who had hitherto had chequered careers, such as James Mason, who had played in cheaply-made thrillers, and Margaret Lockwood who had appeared intermittently in pictures like *Bank Holiday* in pre-war days and had taken a not very fruitful flyer at Hollywood in 20th Century Fox's Shirley Temple starrer, *Susannah of the Mounties*, and the De Mille production, *Rulers of the Sea*.

In the past, Britain had lost Ronald Coleman and Ray Milland to Hollywood ; it was to lose, and still loses, many players, but at least the tide has begun to turn. Hollywood is no longer the Mecca to which every British film artist bows.

Even without stars, Britain was now making films which ranked but against that, its artistic success, without big name stars, of *San Demetrio*, *London*, true story of the oil tanker which came home home after catching fire and being abandoned following a German attack on a convoy, its decimated crew either half starved or dying, was to show that the British studios could make its *Battleship Potemkins*—and better.

Direct government financing was to be responsible for one of the biggest hits of the period—*49th Parallel* (*The Invaders* in America), while proximity to the occupied countries was to make its dramas of the war as seen by the inhabitants of the occupied countries, such as the *Silver Fleet*, with Ralph Richardson.

Even greater stabilising power for the industry than government support was provided by the phenomenal rise of J. Arthur Rank as the power behind at least five out of ten British films.

J. Arthur Rank has alternately been held up by his detractors to be a monopolistic tyrant and a hymn-singing hypocrite. Just as extreme are those who regard Rank as the man who rode to the rescue in the last reel and saved British films from the death sentence.

The truth lies midway between the two. Rank might be monopolistic but certainly so far from being a tyrant he gave native production more latitude and freedom than it had ever had before. He rescued the talents of those who had to grind out pictures to suit



(Above) Erich Von Stroheim in *Foolish Wives*, which he made for Universal
(Below) Joan Crawford in Metro Goldwyn Mayer's *Our Dancing Daughters*





(Above) Noel Coward in *In Which We Serve*, which he scripted and also co-directed
(Below) Gary Cooper and Ingrid Bergman in Paramount's *For Whom the Bell Tolls*



the preconceived opinions of the illiterates of Wardour Street renting concerns and gave them the facilities for making films which answered up to their own artistic conceptions of what a British picture should be, which certainly was not a carbon copy of the Hollywood article.

That is why the British picture of to-day still has much in common with the films of the first heyday of the British industry. No American could ever have caught the feeling of Hepworth's *Comin' Through the Rye* or *Alf's Button*, or Samuelson's *The Dop Doctor* or Broadwest's *Missing the Tide*. And no American could catch the essential understatement of such films as *The Way to the Stars*, *The Captive Heart* or *Odd Man Out*.

Why, indeed, should an American attempt to capture that feeling? Elsewhere in these pages it has been pointed out that Britain has still to make its first Western, but, more than that, it has still to make its first *Broadway Melody*, its first Walt Disney cartoon, its first animal film like *The Yearling*, each and everyone of them such an individual product of America as would be hard, if not impossible to reproduce in any other country.

The advent of Rank meant, then, that British pictures were at last imitating nothing and nobody but Britain and British people.

And there very likely never would have been a J. Arthur Rank in films if his first modest incursion into film production had not received such a chill and unfair reception from the Wardour Street distributors that he felt it a challenge to the decencies of ordinary business practice and, modestly at first, determined to show that even in a rough and tough game like film salesmanship and exhibiting there could be elementary fairness.

No detractor of Arthur Rank has ever said that he did not keep his word. Or, if he said he would back a picture for a certain sum of money, that the money was not forthcoming on the date appointed.

To people who work in other industries that may not seem anything much to boast about. Seven years ago, however, on the distributing side of the industry, broken promises and niggling get-outs over agreed sums for pictures were so common that those who survived were those who worked on the assumption that no promise would be forthcoming and no money laid on the line on the day appointed and so, in self-protection, conducted their own side of all negotiations with a toughness and ruthlessness almost akin to that of a racecourse "wide boy."

Compared with J. Arthur Rank, the leading figures in the Holly-

wood scene are becoming increasingly small by comparison. He is reputed to be the fourth wealthiest man in the world, for, besides films he also has very big stakes in flour milling, insurance, and ship owning. The millionaire director of more than seventy companies, he is a teetotaler and the conductor of a Sunday School in his Reigate, Surrey, home, where he takes the boys' Bible class. Nor is he anything but sincere in his evangelical work, having astonished his colleagues on one occasion by leaving a huge week-end film convention, attended by scores of executives, to hurry away on the Sunday in order not to miss his Reigate Sunday School.

Although he was the grandson of an extremely wealthy man, a patriarchal character who built a wooden windmill at Nafferton in the East Riding of Yorkshire, and made it in course of time one of the most important flour milling industries in Britain, Rank, who was born in Hull in 1888, never went to a university but was educated at a Yorkshire grammar school and a Methodist school at Cambridge.

"It was making films to encourage young people to attend church that started me in films," he once said.

A modest two-reel religious film, *Mastership*, marked his debut into the realms of film production. Responsible for putting two hundred projectors into Nonconformist and Anglo-Catholic churches, he formed Religious Films Ltd., of which he became treasurer. Film production, he learned, was expensive, and the returns to be expected from showing films at Sunday Schools and church screenings was by no means large. Money was not his objective, naturally, and even after becoming the inspired pivot of what is now spoken of in the Press as his "fifty million pound film combine," he continued his religious film activities and his was the guiding hand behind *The Man at the Gate* and *The Great Mr. Handel*.

On board a yacht owned by Lady Yule, widow of a merchant prince who had made his millions in India, Rank outlined a plan for going into production of films in a more ambitious way. They called the company British National Films and produced *The Turn of the Tide* at Robin Hood's Bay near Whitby.

It was well received by the critics but not by the film trade. It had been made outside the regular channels. No company would handle its distribution.

Rank then took a decision which was to affect the whole future course of his life—and the British film industry. He determined that good British films, and *Turn of the Tide* was good, should get a

showing on British screens. With the late C. M. Woolfe, who had a long experience of the film distributing side of the industry, he launched General Film Distributors.

When Universal Pictures of Hollywood was in course of re-organisation, Rank stepped in, and, through General Film Distributors, agreed to distribute Universal Pictures in Britain.

He still lacked control of a circuit of cinemas. American companies were then trying to obtain a major holding in the Gaumont British circuit. Rank joined the board of the smaller Odeon chain of halls. Three years later, Oscar Deutsch, who had originated the Odeon circuit, died. Rank found himself in control of Odeon.

John Maxwell, who held a large interest in the Gaumont circuit died in 1942.

Such a chain of events could not possibly have been foreseen by Rank. That he should have lost two such friends in such a short space of time seemed inconceivable, yet, through no jockeying for position on his part, he now found himself in the position of buying the shares in the Bradford and Metropolis Trust which would give him control of the Gaumont circuit as well as Odeon.

In terms of theatres it gave him more than seven hundred first-rate halls as an outlet for his films, for he had been instrumental in building Pinewood studios and acquiring Denham from Korda's London Film Productions.

In addition he was to find himself, ultimately, with seven West End "shop windows" for his films—the Odeon, Leicester Square, the Odeon, Marble Arch, the Gaumont in Haymarket, the New Gallery in Regent Street, the Marble Arch Pavilion, the Leicester Square Theatre, and Tivoli.

His acquisition of Gaumont British had given him studios at Shepherd's Bush and Islington. Also attracted into his orbit was Two Cities Films. In 1942 came the formation of Independent Producers, which was to concentrate a number of producers without in any way curbing their artistic freedom.

Television had also come into his sphere through the acquisition of Gaumont British, for that organisation had a considerable stake in the Baird Television set up. Bush Radio was also another Gaumont British sister company which had come under his domination at the same time.

Laboratories at Denham, G.B. Animations (with a country mansion at Cookham in Berkshire as its headquarters for making

cartoon films), G.B. Instructional Films, yet another studio at Highbury, Eagle Lion Distributors, the G.B. News, the Universal News—the list of subsidiaries and associate companies was to become overwhelming.

During the closing stages of the war Rank had met many American soldiers and talked to them about films. They told him what they considered were the defects of British films, that the girls in them were uninteresting, the male actors effeminate, the delivery of the dialogue too clipped, and the pace of the films too slow, and that, generally speaking, British productions were skimped and cheese-paring by Hollywood standards.

Rank started having his stars and starlets groomed, dressed by fashion houses, publicised. Raw beginners now go through the preciously-styled Rank Charm School, and many are given a grounding in stage work in the Rank-controlled Worthing Repertory Company.

A cry was heard in the House of Commons that Rank was turning the film industry into one vast monopoly, and he had to promise that he would not acquire anything else without first telling the government and getting the consent of the Board of Trade.

The promise, of course, applied only to Britain; outside of the physical boundaries of the country, Rank went on adding to his celluloid kingdom—and goes on adding to it.

The critics of the Rank organisation protest that they do not know how deeply rooted is the parent tree. When, during the war, a commission was appointed to inquire into the cinema industry generally, the committee reported back: "It is regrettable that as soon as we attempted to pursue our investigations into the realms of detail, we found ourselves groping in conditions of statistical twilight," an observation which was not, of course, born only or entirely of their inquiries into the Rank ramifications but of all the other major companies and circuits as well.

But they did ascertain that, although the circuits own only approximately one in four of Britain's cinemas, the independent halls are smaller than the circuit halls, less modern, less luxurious, and that, regarding the scene as a whole, the circuits actually control one third of the seating capacity of the nation's cinemas because their halls are bigger.

They summed up that the independent halls were not sufficient in themselves to compensate an independent producer of feature

films for his outlay ; if he did not get his films released by one or other of the circuits, the independent bookings would not total enough to return his production costs and show a profit.

This has become one of the major criticisms against monopoly in the film business. The second is, that in order to woo the American market's craze for lavish expenditure, the Rank producers tend to get away from the type of British story which relies on straightforwardness for its main effect and to pile on the trimmings and garnishings of prestige pictures such as *Henry V*, *Cæsar and Cleopatra*, *Men of Two Worlds*, *London Town*, which cost in the aggregate between two-and-a-half and three million pounds, and that, after all is said and done and they are shown widely in America and the Dominions, they cannot show a reasonable profit.

In short, even his own writers, producers and stars experience nervousness at the thought that he might lead the British film away from the thing which has made it famous, namely, the honesty which it has inherited from the documentaries from which it stemmed during the war, and subordinate the style of picture to the shallower demands of the Middle West of America.

Acquiring fifty cinemas in large U.S. cities, Rank has taken the British picture right into the friendly enemy's camp, for Americans have come to regard the British picture with a degree of respect and warmth that would have been inconceivable a decade ago.

In U.S. cities with a population of two hundred thousand, the British cinema and British films are becoming a part of daily life. In New Zealand, half of the biggest chain of halls is owned by Rank. He holds a quarter interest in South Africa's most important group. There are already one hundred and five Rank cinemas in Canada, and sixty more are to be built. In Australia the number is one hundred.

The group extends to Dublin, Cork, Hong Kong, Singapore, Cairo, Persia, Palestine, Iraq, Spain, Portugal, France, Holland—in short in practically every centre or country where films are shown.

He has an arrangement with the five major circuits in America, RKO, Warner, 20th Century-Fox, Metro and Paramount whereby they play British films on the same terms and in the same theatres as they play their own. It means the showing of British films at three thousand American first run cinemas.

The emperor, in running his empire, takes just as much delight in the circuits' Saturday morning children's clubs as in the vast

foreign ramifications of his business. The clubs have also been tilted at—as likely breeding places for fascism because, it is alleged, they foster the mass mind, unquestioning subservience to authority, and mob hysteria. Contemporary writers have studied the problem earnestly. One body of investigators even issued a questionnaire asking thirty questions to schoolmasters and youth leaders, who were supposed to collate the information and send it in to the instigators, instigators who were seemingly unaware that they themselves were proceeding on semi-fascist lines in trying to reduce individual opinion to a mass reaction.

And no one has ever shown that children, susceptible to outside influences as they may be, are not born with innate common sense, an instinctive degree of taste and that, though the clinical mind can help by guidance, it really does defeat its own ends if it wraps children around with so many protective layers of mental cotton wool that, when they are adolescents, they are too softly-fibred to stand up to life.

Even Arthur Rank's clubs find their mildly innocuous propaganda for better living rebounding on their own heads. The children promise to obey their parents, and tell the truth, to be kind to animals and play the game, and to try to make their country a better place to live in ; they greet with chuckles such slogan lantern slides as those which proclaim : " Under the spreading chestnut tree poor Mopey Mickey stands. They won't let him stroke the wee white lamb 'cos he hasn't washed his hands," but when a demure little boy and girl appear on the screen and announce : " We are going to Sunday School to-morrow, are you ? " a delighted audience yells back " No ! " with one accord.

The story is told, too, of a film, planned for children only, which depicted a boy finding some money and being tempted to spend it ; his better nature came uppermost and he returned it and received a reward. The completed film, viewed " on higher levels," met with a frown. The child, the producer was told, must not be rewarded at the end of the film—virtue is its own reward. The climax of the film was altered accordingly, but when the film was shown and children were invited to write what they had learned from it, at least one budding Dead End Kid quite unashamedly wrote : " What I learned was that if you find something it is best to stick to it because if you give it up you don't get anything."

Those who delightfully recount the story are oblivious to the fact

that Arthur Rank laughs last, for the real moral of the story is that it proves conclusively the need for yet more and more films for children in order to counteract the materialism of the ordinary commercially made film.

The critics of J. Arthur Rank ignore the one salient lesson of his advent into British films. Without Rank, British films would have died again, just as they did in World War I. When the trade would not give him screen time for *Turn of the Tide* he struck a blow for film producers which freed them from that sort of tyranny; by bringing cinemas into the producer's orbit, he guaranteed an outlet for their product.

And it still is no crime to be a millionaire. When he formed Manorfield Investments, Ltd., in August 1939, with a capital of one hundred pounds, of which he took fifty-one of its £1 shares, with his wife, his lawyer and his business associate John Davis as his confederates in the enterprise, he probably did not see the enormous "vertically integrated" trust which was eventually to spring from it. He himself says that he simply felt at that time that "the film business needed tidying up."

Even his detractors have not been able to point the finger at his private life. His wife, the Hon. Laura Ellen Rank, daughter of a former Lord Mayor of the City of London, is the same kind and unassuming person whom he met, loved and married thirty years ago.

The most commonly heard plaint of the film technicians is that if a man does not work for Rank he does not work at all. An exaggeration—and, without Rank's advent, there would have been no work anyway.

Writing a Sunday newspaper article, I asked Rank—at the behest of a news editor who thought he had hit on a question which would embarrass the film millionaire—how he reconciled the sexy inanities of some of the American musicals which his cinemas showed with his own religious leanings.

The answer was patient: "The companies are run by shareholders who appoint many directors beside myself, and the others have just as much say in such matters as I do."

The news editor was duly discomfited. His cinema *cæsar* had turned out to be a democrat.

XIX

FAR-AWAY FILMS

THE film from the Continent made a great impact upon the screens of both Britain and America in the dawn years of the cinema, but the advent of the talking picture meant a curtailment of this former internationalism of the film.

Sub-titles could be translated into any language and inserted in a silent print. Speech, on the other hand, meant either the irritating introduction of running sub-titles at the foot of the screen, or the dubbing of the actors' voices into another language by players who had to synchronise their words with the lip movements of the characters depicted on the film.

Neither method is completely successful; running titles detract from the picture itself, and the dubbed voices, however skilfully done, do not always completely fit the appearance or character of the person being dubbed.

From France, Sweden, and Russia came many magnificent films in silent days. They received fairly wide distribution. Sarah Bernhardt in *Queen Elizabeth* (page 177), a French-made subject which was shown in Britain under the title of *Queen Bess*, was snapped up by Adolph Zukor when he was founding his Famous Players Company, later Paramount, and formed the foundation stone of that edifice in America.

Important and artistic films are still imported into Britain and America, but distribution is limited to those centres which boast specialised or repertory halls.

The West End of London has a few, but until the Rank organisation decided to release a dozen foreign films in the provinces experimentally, people outside the metropolis had no opportunity at all of enjoying the fine work of foreign studios.

Biggest contenders for playing time in the early years of the electric theatre were the Italians. Their productions were conceived on a grand scale, though the stories were often ponderous and stagey, as

was the acting. Historical dramas, of the internationally famous *Quo Vadis* type, were their most popular export. *Cabiria*, begun in 1912 and finished two years later, and based on a scenario by Gabriele d'Annunzio, boasted an entire army crossing the alps in the snow, a vast scene of a siege, and a statue of Moloch more than a hundred feet high, ingredients which were then looked upon as the last word in production value. It was directed by Pastrone and starred Maciste, a mighty strong man who had been a furniture remover and who adapted himself, after incessant drilling, to the rudimentary technique of silent film acting then in vogue in Italian studios—in the main it consisted of broad gestures, rolling eyes, and the stance of someone stepping on a beetle.

From the studios of Ambrosio, Pasquali, Itala, and Cines were to come a never ending flow of such pictures—*The Last Days of Pompeii*, *Nero and Agrippina*, *Mark Anthony*, *Dante's Inferno*, and several ornate and theatrical versions of Shakespeare's plays.

Griffith is reputed to have copied the idea of his mass crowd effects from the Italian films. It is difficult to imagine why he should have done so because his technique was far in advance of that of the Italian directors. The Griffith spectacles were always reduced to human terms, the Italian films never. Their stars were puppets, their mass effects as impersonal as all pageants.

The first world war brought the Italian studios to a standstill. They never recovered as far as the outside world was concerned. The end of the Second World War has seen a come back. *Open City*, prepared while the Germans were still in Rome, is a vital piece of film craft. So is *To Live in Peace*.

The French studios kept up a spasmodic supply of productions through war, slump, and occupation by the Germans. Wisely they never made films to suit anyone but themselves and thereby succeeded in turning out any number of pictures with the stamp of individuality.

From the early trick films of Georges Melies and the melodramas of Gaumont and Pathé, they were to develop a delightful comedy style which no other country ever has equalled, or is ever likely to, because its style is so essentially Gallic.

French film production has always been lightheartedly undertaken. Few or any considerations of "box office" are held to be important, and though male stars have achieved international repute, the feminine stars have always regarded their jobs in the studios as a sideline

to the theatre and have seldom stayed long enough on the screen to build up any lasting reputation as film stars. Those who, like Simone Simon, take the job seriously usually migrate to Hollywood.

The French cinema has always concerned itself with liveliness, wit and beauty rather than with the hackneyed love theme re-vamped *ad nauseam* or the machine-made melodrama. Its producers have always aimed at the foibles of human nature rather than at spectacular effects or at romance on glamorised cloud-cuckoo-land lines of the American picture.

Its leading directors have done good but uneven work.

Jean Renoir, long hailed as the master of the French film, made *Nana*, *Le Bled*, *Le Tournoi dans la Cité*, and the fairy tale *La Petite Marchande D'Allumettes*, but all were either scrambled together, with flashes of genius alternating with some too-consciously conceived arty effects, or were merely precocious. Following the heavier efforts of the Germans, he changed his tempo and turned to the more squalid type of story, *La Chienne*, an inexplicably complicated and heavy-weight detective thriller by Georges Simenon, *La Nuit du Carrefour*, as well as a too heavy-handed *Madame Bovary*, and, in line with his reputation as an artist, a bucolic study, *Toni*, which, before the studios were submerged by the French government's capitulation to the Germans in the late war, seemed to show his disciples that they had some justification for their belief in Renoir as the man destined to guide the French film into the artistic heights, but when Fritz Lang, in America, re-made *La Chienne* as *Scarlet Street*, even the intervening years were not sufficient explanation of the artistic gulf between the two.

His two outstandingly good French films came with *La Grande Illusion* and *La Bête Humaine*. In the early days of the war he left France for America and became a victim of the Hollywood penchant for stamping individuality out of its foreign imports and substituting for it a high gloss of meaningless but imposing-looking artiness. *Swamp Water* (*The Man Who Came Back*), *This Land is Mine*, *The Southerner* and *The Woman on the Beach*—the pictures he made for various American studios—are not likely to be handed down in cinema annals as anything more than fair pictures. Back in France once more, greater things are expected of him.

Rene Clair's is probably the most venerated name on the French screen. An ex-journalist, he brought a lively sense of satire to bear on the small minded provincial and on small minded but wealthy

capitalists, though in *Under the Roofs of Paris* he achieved a hitherto unexpected closeness to working class life.

Le Million, his British-made *The Ghost Goes West*, and his American-made *I Married A Witch*, show three high examples of his versatility, but his greatest contribution to the French screen itself was, undoubtedly, his early gentle satire of French provincial life, *The Italian Straw Hat*, which is still prime favourite with the film societies. Once more he steps into a forefront place on the French screen with *Silence is Golden*, starring Maurice Chevalier.

France boasts its ordinary commercial films, its counterparts of the run-of-the-mill productions of Hollywood. They seldom or never are shown outside of France, but from them sometimes derives an actor or a director who means a great deal to the screen.

The occupation by the Germans, however, stamped out the artistic productions of pre-war days and encouraged the grinding out of the commercial type of film. The Germans banned second features, confined programmes to a limit of 3,200 metres, and demanded that a German newsreel or documentary should be shown in every programme. With the collaborationists, the Nazis formed Continental Films, a producing company which made hackneyed pictures. Many of the "greats" of the French screen worked for Continental Films, or would otherwise have starved. Among them was Albert Prejean of *Under the Roofs of Paris* fame, Raimu, and, for a time, Harry Bauer, although he later died in a concentration camp.

Gone was the work of such directors as Jacques Feyder, Julien Duvivier and Rene Clair in this new sausage-machine concept of picture making. The difficulties of the French industry at this time cannot be evaluated in America or in Britain, where, in the second case, only one British cinema was occupied by the Germans—that at Jersey (the manager of which adroitly evaded most of the problems of showing films to which the Germans might take exception by putting on American prints which they had captured in France and which they sent over to him, or by staging amateur theatricals and boxing tourneys), while America never, of course, faced the problem even as remotely as that.

The turmoil and financial upheavals which followed the liberation found their repercussions in the studios and in the entire French film industry, but good pictures were to start emerging again. Marcel Carné's *Les Enfants du Paradis* is perhaps the best known example outside of France, although with a growing tendency to ever longer

pictures and a certain solemn pretentiousness of presentation in place of the pre-war gaiety, connoisseurs of the French film, both inside and outside of that country, are still inclined to regard the delightful work of the lamented Raimu in *La Femme du Boulanger* (The Baker's Wife), and his drolleries with Fernandel in *La Fille du Puisatier* (The Well Digger's Daughter) as much more representative of all that is best in the French film.

In the present upheaval which is the French industry, with its inability to pay for imported pictures, its own fluctuating finances, and the prohibition which prevents the British (Sir Alexander Korda made the attempt) of sending capital to subsidise films suitable for showing in countries other than France, one may sigh for the poignancies of *Poil de Carotte*, of Duvivier's *Un Carnet du Bal*, and abhor the somewhat late-in-the-day semi-documentaries of France during the occupation with which the nation would appear to want to rehabilitate itself in its own eyes on its screens. Duvivier, although his American-made films are a fast-fading memory, upheld his belief in the internationalism of his art by making *Anna Karenina* for London Film Productions with Vivien Leigh as his star.

The Czechoslovakian film industry is one of the most promising in Europe. At Barrandov it boasts big studios with first-rate equipment.

The language difficulty makes widespread showing difficult, but a Czechoslovak Film Festival held in Britain, with screenings in both London and Glasgow, has done much to make their fine work more widely known.

Each year they make twenty feature films as well as silhouette, cartoon and puppet films, the latter deriving from the widespread use of puppets and puppet theatres throughout the country for the dissemination of propaganda.

Only freed from the shackles of Fascism after the liberation of Europe at the end of the second war, the Czech film is still very young in years but is already achieving a high standard of production. Like the Russian film, the content of the Czech film is largely propagandist. *Warriors of Faith*, *Men Without Wings*, a story of the fate of the workers on the airfields during the German occupation, *The Warning*, drama of the persecution of the Slovak mountain peoples by the Hungarian overlords, *The Stolen Frontier*, a war story, and *The Strike*—these are the titles of some of the features shown at the Festival and give the current trend in Czech studios.

In pre-war days, the few Czech films which reached the English-speaking market displayed a slowness of tempo, a dalliance with youthfully romantic love themes, but first-rate photography. The new film shows a feeling for pictorial effects, but the romanticism has given place to much more vigour and realism.

Though its impact on the screens of other nations has not been so great of recent years, the Swedish film was a delightful addition to the screen fare of the world in the '20's.

Its first films were made in 1909, a comparatively late start compared with other nations, and its output at first was confined to scenic subjects and to immature attempts to wed the gramophone with the screened picture.

Its first studio was opened three years later by Charles Magnusson, who was to dominate the industry until the coming of the talkies put a temporary halt to production.

He regarded the screen as much more akin to the printed page than to either the stage or the photograph. Every Swedish film had an intellectual, almost lyrical, appeal to the mind rather than to the eye or the emotions. The tempo was slow, the subject matter beautifully arranged and presented, and the stars much nearer to reality than was then the current vogue in either American or British films.

The Svensk studio, beside a lake at Rasunda and twenty minutes by tram from the centre of Stockholm, was a large but simply arranged wooden building set amidst pine trees.

Quietness, a family atmosphere, and a tremendous urge to keep the stages neat and tidy—every piece of scenery and every lamp was removed as soon as finished with—gave the place a charm which few if any other studios have ever possessed.

Directors worked like artists rather than as ordinary craftsmen, and in its cloistered atmosphere directors of the calibre of Victor Seastrom and Moritz Stiller were to do some of their best work before succumbing to the more mechanical but better paying Hollywood machine.

From Swedish Biograph, as the company's films were known in the English-speaking countries, came one of the most strangely impressive films of the silent days, *Thy Soul Shall Bear Witness*.

The Swedish directors borrowed nothing from the films of other countries; they depended entirely for their effects on the legends of their own land and the beauty of its snow-covered scenery

for their most cherished effects, and *Thy Soul Shall Bear Witness* was based on a book by Selma Lagerlöf who was a novelist who combined both literary skill and a feeling for the unostentatious religious beliefs held by her countrymen.

With eerie forcefulness and an absence of the macabre, an unconscious man sees the misery he has wrought—the death of the Salvation Army worker who tried to save him from himself, and his wife preparing to kill herself and her children, until the lesson of it all is brought home to him and he pleads for another chance, and, struggling back to consciousness, mistily sees the death cart driving away without him.

Made in 1920, the film was instrumental in making countries outside of Sweden aware of the fine artistic scope of the Swedish Biograph organisation. Their camera work was particularly brilliant. Natural light, even on interior settings, was far ahead of the work achieved on open air stages elsewhere. Their technicians had the happy thought of building the sets on locations which would provide fine vistas of natural scenery when glimpsed through open doors and windows, and the shafts of sunlight falling into a room would be the real thing, dancing with motes and breathtakingly beautiful because of its naturalness.

Seastrom's direction sometimes strained a little too much to include the beautifully simple and the simply beautiful—slow sheep toddling away at the approach of lovers, or the graceful movements made by a servant in performing the everyday, ordinary rites of preparing breakfast in a sunlit kitchen.

Stiller was more dramatic in his methods, but his feeling for beauty was to be his undoing. He chose a seventeen-year-old girl, later to become famous as Greta Garbo, and gave her a leading role in *The Atonement of Gosta Berling*, another of Selma Lagerlöf's novels.

The film was so widely acclaimed that Hollywood sent for Garbo and asked Stiller to accept a contract as well—the Metro studio executives realised that without her mentor they would have difficulty in directing her. But Stiller could only see films as a means of artistic expression and not as a mere money-making machine attuned to formulas and "angles." Forgotten, frustrated, and perhaps a little in love with the beautiful girl he had discovered and who was being taken ever further from him by the commercial demands of the big Hollywood lot, he died of what the romanticists

called a broken heart but which was probably attributable to his own self-neglect.

The Swedish film declined with the departure of Stiller, Seastrom and Garbo, and Sweden imported American pictures, and, when talkies came, ground out movies in the Hollywood tradition to satisfy audiences who had come to accept Main Street as the accepted route to entertainment.

The second world war was to see them cut off from their American supplies.

The artistic Swedish studio went into action again. There was no Lars Hansen, no Jessie Heselquist, or any of the stars of the past successes to call on, and even Ingrid Bergman, idol of the Swedish screen because of her work in *Intermezzo* (*Escape to Happiness*) had gone to Hollywood to remake the film with Leslie Howard and had remained there. Now new directors arose—Alf Sjöberg and Anders Henriksson, the last-named an experienced actor who had made a study of the cinema during his leisure hours on provincial tours. He made his mark with *A Crime*, a psychological thriller of the type that was to be duplicated in America in *Spellbound*, and similar studies of the subconscious mind.

Alf Sjöberg was also from the theatre, but his work lay along even more experimental lines. Unlike his predecessors in the Swedish studios, his work is much less literary and far more filmic. *Frenzy* the first Swedish film to be shown outside Sweden in ten years, follows the Nordic pattern in its sombre story, that of a sadistic schoolmaster who torments a boy who is already confused in mind by his own adolescent problems, while its ending is not grim tragedy, and its treatment is keyed not to sordidness but to pathos.

The Swedish film may seem remote to the ordinary film-goer, until he learns that Sweden is making fifty films a year, is creating new stars, like Mai Zetterling and Viveca Lindfors, and that British experts are collaborating with their own recently acquired technical experience on the Swedish enterprises now under way.

Once the Russian studios held some promise of becoming the fountain head of all film art. With the passing years, however, its productions have become more and more insular and increasingly nationalistic in concept. As the first enthusiasm born of the Revolution of 1917, when the then moribund film studios gave place to creative pictures of the struggle and triumph of the workers in achieving the freeing of their country from tyranny, began to fade a

little, so did their pictures become more elaborate, more painstaking, a little less burning, less virile, and less inspired.

The film industry was nationalised in 1919. Its studios were miserably equipped and its first films, inspired by the work of Griffith, were not convincing. The new Russian regime was making the mistake which film concerns have made from time immemorial—the vain search for a recipe culled from other directors' films instead of the compounding of an entirely new native dish.

The Germans, their own industry in chaos at the end of the 1914–18 war, took some of the Russian output. The Russians also imported a few foreign films, started to re-equip their studios, and, to spread propaganda for the revolution's ideals, sent out touring cinemas.

Faced with a vast illiterate population, the silent film was a powerful instrument for the rapid dissemination of new and advanced political ideas when once the vacillating and hesitant Kerensky government was removed.

The first of the important new pictures to be shown outside the Soviet Union was *The Battleship Potemkin*, made in 1924. It was considered so “dangerous” that, when the Film Society showed it to its members at the Tivoli in London, a trailer was run before it giving the mock-solemn warning that the licence of the theatre might be endangered if there was a “demonstration.”

Potemkin, story of a revolt in the Russian navy in 1905, is noteworthy for the tremendous pace of its cutting, one sequence in particular, that of soldiers marching down a flight of steps at Odessa and firing on the crowds of townspeople who have come to the aid of the mutinous sailors, was, and still is, one of the most powerfully dramatic film scenes ever conceived and successfully executed.

The director, Eisenstein, borrowed his style of cutting from Griffith's methods in *The Birth of a Nation*, in which the actual physical lengths of the scenes are varied to create a tempo in the screened picture. Peculiar to the film, it has become famous amongst the intelligentsia under the name of montage. The term has been so abused that almost any conglomeration of shots has now come to be known as a montage.

Eisenstein and Pudovkin, Russia's two most famous directors, viewing the film as a pattern into which anyone might fit providing they represented a suitable type, eschewed professional film actors to a large degree.

Ten Days That Shook the World, The General Line, Turksib (a



(Above) *Les Enfants du Paradis*, directed by Marcel Carné, won world-wide acclaim

(Below) Rossellini's *Open City*, planned during the German occupation of Italy





(Above) James Mason in *Odd Man Out*, directed by Carol Reed for Two Cities
 (Below) Francis L. Sullivan in Cineguild's *Great Expectations*, directed by David Lean



emi-documentary of the building of the Turkestan-Siberian railway), *Mother*, *The End of St. Petersburg*, *October*, *The Ghost That Never Returns*, and many other outstanding pictures made the Russian film famous in the silent era. The sound film, however, slowed down the pictorial swiftness of the silent Russian film, and one or two weak attempts to make musicals in the Hollywood Cinderella idiom helped further to detract from its high repute.

The strains of war naturally demanded propagandist themes and like most of the other nations, even including Britain with its *Henry V*, Russia turned to its past to point lessons for its present. Impossibly slow, too domestically Russian, their vogue was only a passing one outside Russia and was born principally of a patriotic interest in a ally and her history.

Stereoscopic films have been perfected in Russia, and a version of *Robinson Crusoe* is reported to have been highly praised in the Soviet Union. The outside world, however, has not been able to see it because of the special screen needed for its showing.

Gloomy with an all-pervading sense of fatality, if not futility, the early German films were, in the silent era, so fruitful of technical ideas that their tracking cameras and swinging camera cranes were widely copied throughout the other studios of the world and have now become part and parcel of accepted studio technique.

In the movie's prehistoric era the Germans were in the one and two reel field of production, but even by 1906 they were almost as dependent on the Nordisk films made in Denmark for their supplies of films as they were upon their own studios and foreign supplies.

Ole Olsen, the director of Nordisk, started by making a "jungle" picture which he faked with the aid of a decrepit lion. His pictures became tremendously popular in Germany but the first world war was his swansong.

At first things boomed as never before. Cut off from all other supplies, Germany, too busy with the war to make pictures herself, took all that Nordisk could supply. At one period Olsen was making three hundred films a year for this market. His stars were few, and, apart from Asta Neilsen, were practically unknown in Britain and other English-speaking countries.

Then the great munition firm of Krupps entered the German film field and started the UFA studios, which were capitalised by the big banks. It paid fabulous salaries to Emil Jannings, Pola Negri and Ernst Lubitsch, and Nordisk found itself out in the cold.

The more recent history of Danish films, started as a repetition of the first epoch but has a happier ending. Once again the Danes found themselves tied to the German's tail and once more have been involved in a débâcle, but, rising out of the ashes, they have set a new standard for themselves with *Day of Wrath* directed by Carl Dreyer, which, if it is to be the precursor of a new era in Danish films, promises well for that country and for film-goers in general.

Dreyer, an artistic director of silent pictures, was submerged by the commercial talkie for years. His *Day of Wrath* was given the thumbs down sign by his compatriots, but in other countries, including Britain, it is hailed as a masterpiece. With every shot composed with the perfection of a canvas by an old master, its story of witch-hunting in the seventeenth century is an artistic delight. More than that, Dreyer captures every fleeting thought and emotion of his characters so that the film has an intellectual depth which is not only satisfying but oft times startling.

When the Nazis filched power in Germany they also filched the German film industry.

The UFA studios were ousted by Emelka which, in turn, was under the domination of Hugo Stinnes and the I.G. Farben trust, both of whom were partners of very high standing in the Nazi regime. From then on the German film became almost entirely a medium for propaganda for the fascists. Famous directors, especially those who were Jews, were either ousted or had to flee the country. Their places were taken by men who had less interest in the art of the film than they had in currying favour with the leaders of the Nazi party.

They wiped out all that the German film had previously stood for in cultured circles.

In 1918, in a world which seemed ruined and all but hopeless, young German intellectuals had seized on the film as a medium for expressing their feelings—their despair, their conviction that the world was all but mad, and their desire to be uninhibited and to explore new territories of the mind.

In 1919 Decla surprised Europe by making *The Cabinet of Doctor Caligari*, (page 334) the first surrealist film.

A story told by a madman of a fairground somnambulist who roams a town at night committing murder at his showman-master's behest, the film is startlingly original in every aspect except, perhaps, photography. Its sets and acting are stylised and its scenario com-

pletely at variance with all the accepted rules for making a "box office" picture.

Director Robert Wein had chosen for his players Conrad Veidt, Werner Krauss, and Lil Dagover. All of them were to become widely known throughout the world.

Within two years the German film was plumbing even greater depths of the macabre. It turned to the Wagnerian stories, the Siegfried and Nibelungen Sagas, with their impressive pageantry, their monstrous dragons and their odd feeling that man must face life alone. It was a complete reversal of the old idea of "safety in numbers." Henceforth German pictures were to harp on the individual as the ultimate arbiter of not only his own but all fate.

There was *The Student of Prague*, who sold his soul to the devil for gold, and *Metropolis* in which the workers were mere cattle to be driven to the machines and which for the first time propounded the theory of supermen leaders—here it was a leader of the workers and the leader of the millionaires, both of whom were to forget all past strife and shake hands and tell the men behind them to do as *they* bade them.

The Last Laugh, a beautiful piece of work in which Jannings gave perhaps the best performance of his life, marked a breakaway from this growing propagandist trend. The story of a hotel commissioner who loses his job and has at last, gratefully, to accept the humble office of lavatory attendant, had a remarkable depth of feeling—and a, then, quite curious emphasis on the loss of the commissioner's magnificent uniform—but was marred by a confected "happy ending" in which the old man inherited a fortune.

The fake Leftishness of *Metropolis* began at last to give place to vigorous films advocating the brotherhood of man. Pabst took a plunge into downright socialism with *Kameradschaft*, *West Front 1918* and *War Is Hell*.

Away from political trends only one noteworthy film was to reach screens other than German. It was the delicate and beautiful *Mädchen In Uniform*, the story of a sensitive schoolgirl and a manish teacher who fall in love and find themselves the hapless victims of the iron discipline of their background, a school for the daughters of the military caste.

The musicals, in which Lilian Harvey starred, were blowsy and semi-sadistic in their lingering on sex and torture (most of them included flagellation of one sort or another), then, in 1933, even

these attempts at establishing a film of universal appeal were to give place to the impossible rubbish of the Nazi regime—*The Iron Master*, with its exaltation in the supremacy of the father in the family circle even after his sons had reached the thirties, with attendant miseries of death, rain, smoke and depression of the spirit.

Its later films were to extol the heroism of such bogus Nazi "heroes" as Hans Albers, to attack the Soviet Union, or to try to scare the daylights out of the neutrals with their depiction of Nazi aggression, with all its attendant sound, fury, blood and beastliness concentrated into an hour—*Baptism of Fire*, *Victory in the West*, such were the titles of films whose only contribution to the world thought is that it is still possible in the twentieth century for the lunatics to take charge of the asylum.

As in 1919 the German film may rise again. If it does one can only hope that its fate will be guided by men with something intelligent to say and that it will never again fall into the hands of the reactionaries.

FADE IN TO TO-MORROW

THE face of the screen has changed a great deal since we set out on our story. Not only has the forty seconds of *Train Entering A Station* given place to the two-hour Technicolor talkie, but the old relationships between Britain and Hollywood and between the public and the pictures have undergone, and are still undergoing, changes.

British pictures are not only again in favour with the British public but are also gaining ground in that hitherto unassailable citadel, America itself.

Hollywood employs thirty-one thousand people in the making of its films and pays out approximately two hundred and eighty-six million dollars in wages every year. A business of that magnitude is not likely to fade away either lightly or quickly in face of British competition. Besides the people actually engaged in making American films there are fourteen thousand employed in distributing them, and they also carry home some forty-four million dollars in their pay packets every year. Nor is that all, in America's eighteen thousand seven hundred and sixty-five cinemas there is a greater army of workers than in either the studios or in the distributing centres, namely one hundred and sixty-one thousand people, and they, in turn, earn about two hundred and eighteen million dollars in the course of a year, which means, taking into account the minor off-shoots of the industry as well, that nearly a quarter of a million American people depend on the pictures for their livelihood, and that, roughly speaking, they account for six hundred and fifty million dollars of the nation's yearly earning power.

The equivalent British figures do not at present approach even a quarter of these astronomical sums.

Hollywood continues to make between two hundred and three hundred pictures a year. Britain makes not more than seventy. In the bad days of the Quota Quickie, Britain made two hundred films a

year, but their quality was so shoddy, and their lengths, usually between four thousand and five thousand feet, so meagre that they bear no comparison to the position today.

The quality of British films is now the equal of the American article and, in most cases, its superior, and, with an increase in studios, there is no physical reason why the output of British productions should not eventually equal that of America, though why that should be the aim of British producers' is another matter. Overproduction can bring in its train difficulties of distribution, or consumption, if one prefers. On the other hand, there is no reason, and never has been, for not playing films in cinemas for longer than the customary three or six days.

Many American cinemas still change their programmes daily—hence the big Hollywood output to meet the demand. Britain is never likely to want to play its pictures in America's "one night stands," so, with a hundred or so pictures a year, and a reasonable way of showing them—namely separate performances with bookable seats, and a run in each centre of more than a week where a film's popularity justifies it—Britain could do a great deal more towards keeping its screens supplied with its own native-made productions than is now the practice.

But would it be desirable? This is not the place to debate the internationalism of art, but only a super-nationalist, surely, would ever want to see one country's cinema screens denied the showing of other countries' films.

A move is being made in Britain to give Continental films Sunday night playdates (as the film trade calls films' engagements at a cinema) at a number of selected circuit halls.

The move is being made cautiously. There is still a lot of prejudice against foreign language films. It is only recently that the British public in the industrial centres, which means the vast majority of the film-going public, has begun to accept British films as superior to American pictures.

The reasons for this change of heart have puzzled many American film executives.

The second world war was doubtless instrumental in introducing millions of workers in Britain to their opposite numbers, in G.I. uniform, and for the first time many British film-goers learned that the paradise shown on American films was a bluff.

The adolescents who had thought of America as one vast

chromium-plated soda fountain became aware that, behind skyscraper and luxury train, was a nation one third of whom lived in slums. (Even in socially-superior Boston one house in five has been condemned and one in ten of the population of the U.S. lives in dwellings without running water, baths and indoor sanitation). The teen-agers learned for the first time that, in the South, the lynching of negroes is a common occurrence, that the average Middle Westerner believes that his three States are responsible for feeding the world, a world of down-and-outs for ever seeking a hand out.

The general overall picture was disappointing. Henceforth the gloss was off the Hollywood movie. The tide turned in favour of the more truthful British picture.

There were contributory factors, too. The American Censor appeared not to understand British films. Though Errol Flynn as an American soldier might win a Burma campaign without the aid of the numerically superior British, the American censor could not allow a British "dam" or "God" in the tender moments of British-made war dramas, and though, at a later date, certain mean, moody and magnificent American young women could romp in the hay with their sadistically inclined playmates, the dresses which Margaret Lockwood wore in *The Wicked Lady* had to be made more demure lest they offend the Great American Matron.

A grown-up Shirley Temple could appear in a skittish farce about a fifteen-year-old girl who pretends to be pregnant by the boy next door, but it was thought desirable to expurgate some of Shakespeare's more virile lines from *Henry V*.

So perhaps it is not surprising that British newspaper readers gained the impression that Joe Breen, of the American Hays organisation, which keeps an ever-watchful eye on the screen, was discriminating unfairly against British pictures.

The decline in the popularity of the American film in Britain is not, of course, entirely due to these extraneous causes but also to a tendency towards staleness in the pictures themselves.

Hollywood, from being a place for pioneers, has now become a paradise for producers. Once the director remained supreme on the studio floor. Now he is the lackey of the producer in the front office. He is handed a script and told to shoot it exactly as written. He does not need inspiration nearly so much as he needs a time clock.

The film-goer cares not at all that a picture is a Zukor, a Zeidman or Zimbalist production.

In Britain, however, there is an ever-growing awareness of the director's identity. The names of Carol Reed, David Lean, Launder and Gilliat, and half a dozen more, become increasingly familiar.

To-day, the hope of the American film lies not in the heavily supervised output of the big studios—with their tendency to make pictures which conform to ingredients for success at the box office culled from inquiries directed at ascertaining the elements which the majority of the public likes—but in those independently made pictures which are happy to leave fifty-one per cent of the film-going public to the big studios and content themselves with aiming at the remaining forty-nine per cent.

It makes for individuality. The smaller independent units concentrate on from one to four pictures a year. The big companies release for them, saving them from the attendant worries of distribution. Thus they can concentrate solely on making pictures—and making them with freshness, resource and ideas.

There are nearly fifty of these breakaway independents. Very soon their output may equal that of the major companies.

Instead of coming from half-a-dozen major American "lots", pictures are now also coming from as many as one hundred directors of courage who have thrown off the shackles of the sales manager's graph and are making movies the way they want to make them. The director is thus enabled to pick his star for his story instead of having a story thrust into his hands by a producer because the studio simply must find a story for a star under long term contract.

For too many years pictures have had to be tailored to conform to the ideas, tastes and selling "angles" of the studio boss, a boss governed, in turn, by a sales chart. It resulted in the "reliable box office attraction."

Henceforth, the studio boss may be far happier with the bigger returns garnered from pictures made by those directors who, formerly making for him, are now asking him to work for *them* by selling the pictures they make.

Perhaps Britain will then say goodbye to the "American way of life" as Hollywood sees it and see American life as the American himself sees it.

From those few big names who have produced independently for some time past, Samuel Goldwyn, David Selznick, Walter Wanger and Hunt Stromberg, have come some of the most satisfying films.

America has invoked its Sherman anti-trust laws to bring about a cessation of the pernicious system of block booking pictures, and her exhibitors have a greater freedom of choice in what they show. The independent producer therefore has, in turn, a bigger chance than before of getting his productions screened.

His path is still beset with the one difficulty that has always obstructed independent production, namely finance. The big distributors will give him backing but all too often lay down conditions which are irksome, the condition that they must first approve story, star, and production methods. If he capitulates, the independent is lost in the vicious circle again. His hope lies in the fact that Hollywood is becoming increasingly aware that it must respect the independence of the independent producer or itself become entangled once more in miles of machine-made celluloid.

There are other revolutions going on in picture making which are of equal importance from the point of view of the film-goer who is in search of good screen entertainment.

Time was when stars were born simply on the strength of a new type of characterisation. Theda Bara hit the headlines because she created the "vamp," the *femme fatale* who was then something new in screen bad women. Theda's women were bad, but, unlike their predecessors, they were also seductive. William S. Hart became world famous because he combined the tough, stern-faced, two-fisted, two-gun, tough guy of the Wild West with a comforting line in instruction in the scriptures as moral uplift. Douglas Fairbanks arrived to play the nice clean American young man whose muscles could extricate him from every situation, with the added charm of a smile and blink just to prove he was no mere thick-pated athlete, while the mysteriously aloof and chillingly beautiful Greta Garbo harped for many a picture on one theme—there is beauty in sorrow and sorrow in beauty.

For years the stars themselves, backed by the studio executives, would allow only minor deviations from these profitable "lines." Five years was then the average life of a star; for five years the film-going public would pay to see its favourites just as it knew its favourites would appear. Now the public expects versatility. So do the stars themselves; they seldom refuse a role to-day because a character is not sympathetic and may surprise their fans. The film-goer so far from not wanting to be surprised, demands variety. He is beginning to lose his old loyalties to stars simply because they

look lovely, or cute, or curious. Now he asks for a good story first, and second a deviation from the "mixture as before" on the part of his favourites.

One stumbling block to a greater advancement of the screen is that it lacks a high standard of criticism in Britain. With few exceptions its Press critics are drawn from the ranks of those writers who combine a lack of understanding of the motion picture medium with a lack of understanding of the public which is its audience.

Many of the critics come from the middle class and bring an easy Galsworthian pen to bear on the screen, unaware that the film itself is both an art form and an entertainment which, in catering for everyone, necessarily embraces millions upon millions of lower-income-bracket wage earners as its most staunch patrons.

The standards of criticism applicable to the West End theatre cannot be helpful to the film makers. They are not catering merely for that polite, and often slightly seedy, section of the public which dusts the moth balls out of its fur tippet and makes an occasional foray to one of London's quiet West End theatres, but a workaday audience of millions who are impervious to the lightly playful comments of the critics and who demand solid information about a film.

There are all too many plot reviewers at work, those writers who, bereft of critical faculties, make a resumé of the entire plot of the picture—as though plot were a primary consideration—and leave the reader with little desire to see the film because he now knows its situations, characters and climax in detail.

Only slightly to be preferred is the type of critic who grows more and more arch the older she gets (this kind of critic is usually a woman). Their reviews are sprinkled with "Mr." and "Miss" to mark playful disapproval: "I must admit that I have never been enchanted by Mr. Turhan Bey's smudge of a moustache and Miss Yvonne de Carlo's bee-sting pout," though a few lines lower down we find that Olivia de Havilland, who happens to better please the critic, has no prefix to her name.

Trivial? Of course it is, but irritatingly archaic.

Then there is the mental-gymnast type, who thinks to amuse where it cannot inform by writing "Mr. Johnny Weismuller as Tarzan displays both his torso and his lack of vocabulary in his latest depiction of Edgar Rice Burroughs' famous muscle-bound hero, while Brenda Joyce, by no means the plainest of Janes, is surely the straightest and least nonsensical the ape man has ever

lured into his desirable treehold residence." Obviously the purpose of such writing is that, even if the films described are not, in the reviewer's estimation, entertaining, at any rate her descriptions are amusing. That does not help the film makers, or the critic's readers, however.

A more virulent type uses the wisecrack to do duty for a review. "*The Forty Thieves*—I left after two," or "*The Long, Long Trail*—better not set out."

The critic may revel in her own wit but the reader is left with a feeling of frustration.

Worst of all are those critics encountered in film journals devoted to the *avant garde*, with their fruitless attempts to catch pictorial images by means of words: "Soldiers with guns, faces, fear on faces, debauched officer shouts, people fall, ambulance bell, a nurse picks up a rattle and restores it to an infant, everyday things still happening in the midst of hate and blood and terror, and all because—the word rushes up to us in letters two feet, four feet, ten feet high—HUNGER."

It only serves to confirm what people who make pictures know, namely that one can turn words into pictures but one cannot turn pictures into words.

The critics have apparently never noticed the two things which make a film different to play or novel. There is little or no time sense in a film. If one thinks of the last film one saw and asks oneself: did it take place in the space of one day—a week—a month—three months, one cannot be certain. A good film is not a chronicle of events but a chronicle of emotions, of moods, of situations. To try to discover whether a film covers a period of two hours or two days is like trying to discover if the *Moonlight Sonata* represents the first quarter or the last quarter of the moon. Yet the critics persist in the use of standards applicable to the stage despite this inherent difference.

Secondly the appeal of the novel is to the mind, the appeal of the play to the eye and ear, but the appeal of the film is to the heart, and not to the sentimental aspects of that organ but to its more readily acknowledged function, that of pumping blood through the body. The film, because of its compression of time and its facility for jumping to whatever place it pleases, brings, as we found in an earlier chapter, a tremendous, almost an exultant, sense of power to the beholder.

The critic who can convey that time compression in words and that sense of power in words has yet to be born.

Until that day comes, the makers of film at least have a right to ask that critics should know something of the technique of the film. The cult words, integrity, film-sense, and so on, are worked to death. How refreshing it would be to read a criticism that commented on the background music, or even noticed that it is a part of the picture pattern, or to read one that had something intelligent or intelligible to say of the cutting, as well as the direction, and of the camera work instead of the eternal harping on plot. Have the reviewers never noticed that when the average man or woman tells one about a film they always tell one its plot? The public can understand and evaluate plots very readily. They do not need the critics' help in this.

When will the critics give them the pointers which will enable them to evaluate, not stories, but pictures?

What are the qualifications for becoming a film critic? One could fill a chapter enumerating them. Some skill or at least experience in making films would seem to be helpful, though admittedly it is quite possible to be a drunk without ever having served behind a bar.

Which is perhaps the clue to why film critics become film critics—they like pictures, they absorb pictures as blotting paper absorbs ink, they, perhaps more than more evenly-balanced film-goers, have experienced to the full that emotional excitement which a good film brings to its beholder.

The way into the film studio is not easy, although at least three British newspaper critics, and possibly several more in America, have served their term in the studios. They are easily the best critics.

All of which would not be important were it not that the film is too heavily burdened by self-appointed critics and investigators, as well as self-appointed busybodies of more virulent sorts, all of them with the desire and the time to devote to slowing it down to four miles an hour by walking in its path with a mental red flag masquerading as a red badge of courage.

In America the Hays office considers every film from the point of view of whether it will morally harm little Elmer or Irwin. In Britain, little Alfred or Ida may not go to the pictures when an "A" certificate film is being shown unless they are accompanied by an adult (who, presumably, by his or her mere presence takes the sting

out of the sadist's whip and the bloodstains out of the carpet beneath the murdered body).

Outside of the picture house, however, little Elmer and Irwin can revel in the tabloids and the comics, and Alfred and Ida can pore at leisure over that Sunday paper, which boasts of a circulation so huge that it obviously enters one out of every ten homes in Britain, the columns of which are devoted every week to rape and incest, to clergymen who interfere with choir boys, to old harridans who use instruments to procure abortion, and to shabby little photographers who pose nudes in their studios, to say nothing of the rest of the miserable parade of debauchees and perverts who appear in its columns every Sabbath for the beguilement of those aforesaid parents and guardians whose presence is essential at the pictures lest little Alfred or Ida gets the impression that married couples occupy the same bedroom (not the same bed—the film censor won't allow that), or that when a gun goes off someone may get killed, things which the parent or guardian is apparently expected to explain away as myths of the film makers' imaginations.

The alternative for the parent or guardian is not to take the youngsters to the pictures but give them a comic to read. In fact, their daily paper probably contains several comic strips. And no censors interfere in the production of comics. Week in and week out, one notorious young lady appears in one of the most popular of all working class newspapers depicted as wearing only the scantiest of gossamer-like frillies—and to be in constant danger of losing even those!

She has no "A" or "U" certificate to worry her pretty head.

In the coloured comic papers there is stuff of a sterner kind for Elmer and Alfred. Here is a hero who has discovered that the villain's strength is ascribable to the hypnotic power of his eyes. The hero easily settles that; he puts the other's eyes out by smashing them with an iron chain.

The English language receives scant respect from the creators of the comic strips, and morality is typified by the pretty secretary who sits on the boss's knee or the fiery Spanish or Mexican girl who relieves her suppressed sex instincts by sticking a knife in her unresponsive beloved.

The title, comic, is sometimes baffling.

The broadcasting organisations of America and Britain can likewise stage their horrific plays without fear of censorship; the

only concession they make is to time their graveyard cum snake-chillers to take place when Elmer and Alfred are supposed to be tucked in bed. That little Irwin and Ida may creep to the landing and stand shivering in their nightshirts hypnotised into a palsy of fear from which they cannot free themselves because of the fascination of the deep voice of gloom and the cracked tolling church bell which precedes these excursions into the macabre, excursions such as would make Edgar Allan Poe quake if he were alive to-day, is just nobody's business at all, let alone the busybodies. And that children are drawn from their beds by such programmes in thousands of working class homes I have no doubt at all, for an examination of a tiny cross section of families in a small English village has produced for me three such children in as many minutes of questioning.

There is no prohibition on children going to a music hall unaccompanied. There they may see a couple of dozen scantily dressed ladies and listen to the comedians pull gags so blue that the band often looks embarrassed.

Does one need to raise a voice to-day, not in defence of the film but to point out that the film has brought a new way of life to millions of people?

The Victorian and Edwardian home has given place to a streamlined ideal based on the work of the film art directors. The modern girl's make-up and hair style is more chic than her mother ever knew, thanks to the films. One can see the work of the film, too, in clothes styles. These things are superficial, but look below the surface and one finds a way of living, of tolerance, of breadth of mind for which the cinema can claim to be responsible.

There are those, of course, who would like to make the screen a propagandist medium and those who would like to condemn it to death because of the harm which it is supposed to bring to the rising younger generation.

Propaganda on the screen can be a two-edged sword. Remember those films that used to prove that the criminal must always pay the penalty in the end? American welfare experts are said to have suggested their cessation because the young idea, so far from refraining from crime because of the moral lesson they taught, took to crime because the films showed exactly where the other chap made his ultimate blunder!

Nonsense, no doubt, and Dr. J. R. Rees, the British Army's chief psychiatrist, after examining thousands of men in the forces, gave

